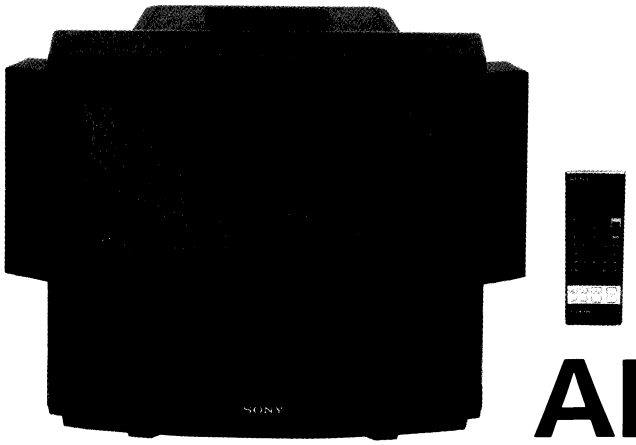
KV-D2921D
RM-689

SERVICE MANUAL

AEP Model

Chassis No. SCC-C96C-A



AE-1A CHASSIS

Note: The service manual for RM-689 has been issued separately.

MODELS OF THE SAME SERIES
KV-D2910B
KV-E2911D
KV-E2511D

SPECIFICATIONS

Television system	B/G/H
Color system	PAL, SECAM, NTSC 3.58, NTSC 4.43 (selected automatically)
Channel coverage	See »RECEIVABLE CHANNELS AND CHANNEL DISPLAYS«
Picture tube	Trinitron tube Approx. 72.4 cm (29 inches) (Approx. 68 cm picture measured diagonally) 110-degree deflection
Inputs	1 21-pin connector: CENELEC standard including RGB input. 2 21-pin connector: including S video input 3 4-pin DIN S video input connector Y: 1 Vp – p ± 3 dB 75 ohm C: 0,3 Vp – p ± 3dB 75 ohms Audio input jacks: phono jack
Outputs	21-pin connector: CENELEC standard Headphones jack: stereo minijack External speaker terminals: 2-pin DIN Audio output jacks: phono jack (output dependent upon TV settings)
Sound output	30 W + 30 W (music power)
Power consumption	118 Wh
Dimensions not incl. speakers	Approx. 656 x 553.5 x 516.6 mm (w/h/d)
Dimensions incl. speakers	Approx. 812.4 x 553.5 x 516.6 mm
Weight not incl. speakers	Approx. 48 kg
Weight incl. speakers	Approx. 55 kg
Supplied accessories	RM-689 Remote Commander (1) IEC designation R 6 batteries (2) Detachable speakers (1 pair) Speaker cord (2)

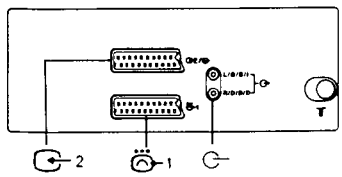
Design and specifications are subject to change without notice.

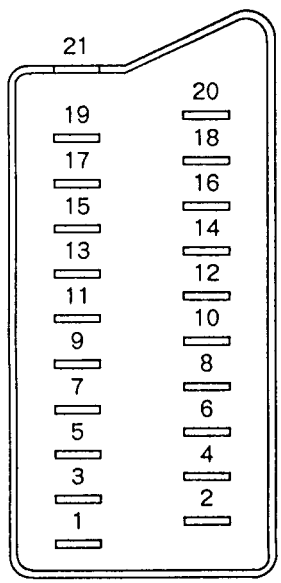
MICROFILM

TRINITRON® COLOUR TV

SONY®

21 pin connector (1, 2)





Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positve
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V±3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V±3dB, 75ohms, posltive
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
20	○	–	Video input	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
	–	○	Video Input/Y (S signal)	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * at 20 Hz–20 kHz

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

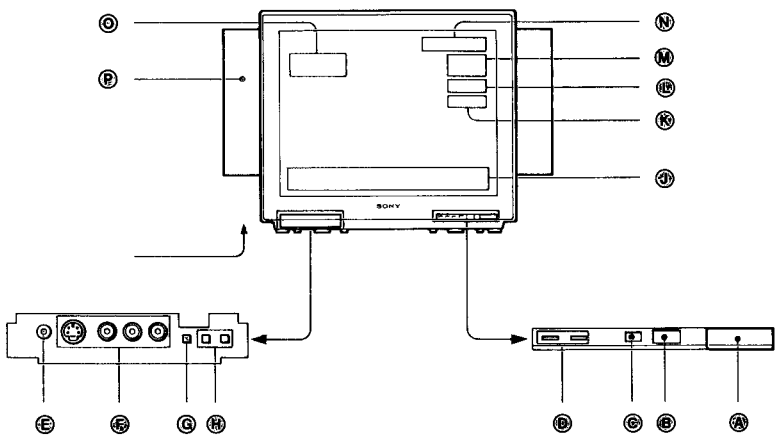
COMPONENTS IDENTIFIED BY SHADING AND ⚠ MARK ON THE SCHEMATIC DIAGRAMS ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THE SERVICE MANUAL.
CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THE SERVICE MANUAL PUBLISHED BY SONY.

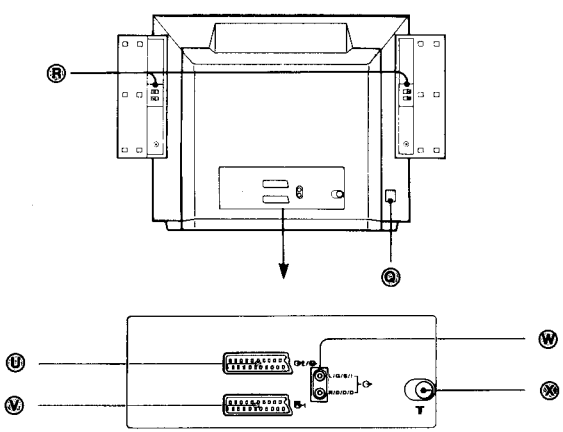
TABLE OF CONTENTS

Section	Title	Page
1.	**GENERAL**	
1-1.	Function of Controls	4
1-2.	To Preset Channels	6
1-3.	Viewing Teletext	7
1-4.	Connecting Other Equipment	7
1-5.	How to Attach the Speakers	8
2.	**DISASSEMBLY**	
2-1.	Rear Cover Removal	9
2-2.	Chassis Assy Removal	9
2-3.	A, J1 Boards Opening and F1 Board Removal	9
2-4.	V, B and Y Boards Removal	10
2-5.	Service Position	10
2-6.	Picture Tube Removal	11
3.	**SET-UP ADJUSTMENTS**	
3-1.	Beam Landing	12
3-2.	Convergence	13
3-3.	Foucus	15
3-4.	White Balance	15
4.	**CIRCUIT ADJUSTMENTS**	
4-1.	A Board Adjustment	16
4-2.	B Board Adjustments	16
4-3.	D Board Adjustments	17
4-4.	J1 Board Adjustments	17
4-5.	V Board Adjustments	18
4-6.	Secondary Adjustment	18
5.	**DIAGRAMS**	
5-1.	Block Diagram	19
5-2.	Circuit Boards Location	23
5-3.	Schematic diagrams and Printed Wiring Boards	24
5-4.	Semiconductors	45
6.	**EXPLODED VIEWS**	
6-1.	Chassis	46
6-2.	Picture Tube	47
7.	**ELECTRICAL PARTS LIST**	48

SECTION 1
GENERAL

1-1. FUNCTION OF CONTROLS





ON THE SET

Ⓐ Power Switch ⏻

Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display Ⓝ for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓑ Remote control detector

(See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓒ ⏻ Standby/Response indicator

This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

Ⓓ Stereo A/B indicators

During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See »CONTROLS ON THE REMOTE COMMANDER«).

Jacks and control panel

The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

Ⓔ Headphones jack (stereo minijack)

Connect only stereo headphones.

Ⓕ Input jacks

(Y/C input) connector (4-pin) **3**
Video input jack (phono jack) **3** (yellow)
Audio input jacks (phono jacks) L/G/S/I and R/D/D/D (red and white).

Ⓖ Mode select button

Use this button to select either the channel select mode, volume adjustment or the input mode.

Ⓗ Adjustment buttons +/–

Select at first the item to be adjusted using the Mode select button Ⓖ : **P** (channel select mode), (volume) or (input mode), then adjust the item by pressing the + or – button.
You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

On-screen display

When you press button 12 on the Remote Commander, the following information will be indicated on the screen:

Ⓙ Picture and sound adjustment items:

contrast, colour, brightness, hue (only for NTSC), sharpness, bass, treble or balance and the respective levels; as well as mute, reset, space sound, loudness and NICAM indications, when the respective buttons are pressed.

When you press button 10 on the Remote Commander, the following information will be indicated on the screen:

Ⓚ TV-System: I

Ⓛ Channel number

Ⓜ Programme number or input mode;
1, , 2, 2, 3 or 3;

Ⓝ Indication of the station name

Ⓞ AV output indication; 1 , 2 , 3 or TV (see »CONTROLS ON THE REMOTE COMMANDER«).

Ⓟ Speakers

See »HOW TO ATTACH THE SPEAKERS «.

Connectors on the rear

Ⓠ Terminals for the right and left speakers

Ⓡ Terminals on the speakers

Ⓤ Euro-AV-connector 21-pin /

For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

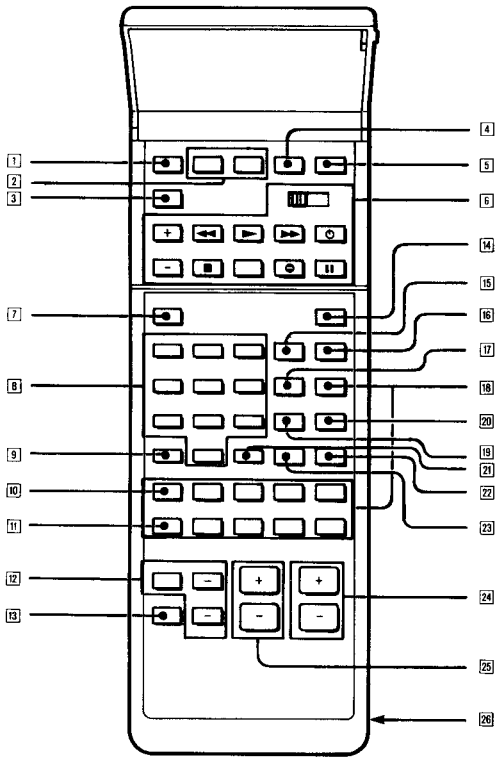
Ⓥ Euro-AV-connector 21-pin 1

For connecting a VTR, a video disc player, a computer ecc.,

Ⓦ Audio-output-jacks (phono jacks)

For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

Ⓧ Aerial terminal



ON THE REMOTE COMMANDER

On the set there is a Remote Control detector Ⓑ, which receives the signals of the Remote Commander.

1 ⇨ **Preset-button** Used for selecting the Preset mode. See »TO PRESET CHANNELS«;

2 **Tuning +/– butttons**
a) Preset mode: Used for tuning in stations in the Automatic Station Search: See »TO PRESET CHANNELS«;
b) TV-mode: Used for fine-tuning a station. See »ADDITIONAL FUNCTIONS«;

3 **C∘∘ button (Clear)**
Used for clearing programme positions, so that the position will be skipped when the PROGR +/– buttons 24 are pressed. See »TO PRESET CHANNELS«.

4 ◇ **Store button:** Used for storing channels. See »TO PRESET CHANNELS«;

5 **TV-system-select-button**
This button has no function;

6 **Video selector and video operation buttons**
Used for operating Sony video equipment. For details see »CONNECTING OTHER EQUIPMENT«;

7 **Mute button**
By pressing this button the sound of the set will be switched off and by pressing it once more the sound will restored.

8 **Number buttons**
a) Used to select programme positions or to input channel numbers (in the preset mode).
b) If the set is in the standby mode, press one of the number buttons to switch it on.
c) After pressing the Output select button 17 the buttons 1-3 can be used to select the different Output connectors.

9 **-/-- Button**
In case of two digit numbers, press first this button and then the two respective number buttons 8.

10 **Button for On-screen display**
By pressing this button information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exeption of the programme number, which will stay on the screen until the button is pressed once again.

11 **Time button**
In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

12 **+/– Buttons for picture and sound adjustments**
a) TV-mode:
The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: contrast, colour, brightness, hue (only for NTSC colour system), sharpness, bass, treble or balance. You can adjust the settings by pressing the + or – button.
b) Preset-mode: Use these buttons to name a station. See »TO PRESET CHANNELS«;

13 **Reset-button**
By pressing this button the picture and sound adjustments are reset to the factory-set levels.

14 **Standby-button**
Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button 16 or one of the number buttons 8. To return to the teletext mode, press the 18 button. There will be a slight delay before the picture is restored.

Note

Use the Standby-button 14 only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch Ⓐ.

15 **Input-Select-Button**
Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:
1 → (RGB) → 2 → 2 → 3 → 3
TV-mode

16 **TV-Button**
When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

17 **Output-Select-Button**
Press this button to select the audio- or video signals to be output at the connector. First press this button, then select the desired signal source using the number buttons 8 (either 1, 2 or 3) or the TV-button 16 (if the signals which are on the screen are to be output).

18 **Teletext operation buttons**
These buttons are used for teletext operation. See »VIEWING TELETEXT«.

19 **Loudness button**
By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be or .

20 **A/B button**
To select the channel of bilingual programmes. Usually the synchronized version is broadcast on channel **A** and the original sound is broadcast on channel **B**.
During NICAM broadcast, use to select the sound, which you would like to hear (See »ADDITIONAL FUNCTIONS«).
In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists.

21 **C (Channel select) button**
Use this button for direct channel tuning in the TV-mode. See »ADDITIONAL FUNCTIONS«.

22 **This button has no function on this set.**

23 **Space sound button**
Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be or .

24 **PROGR +/– buttons**
TV-mode: Use these buttons to scan the available programmes up- or downwards.
Preset mode: Use these buttons to scan the available channels up or downwards.

25 **+/– buttons for adjusting the volume**

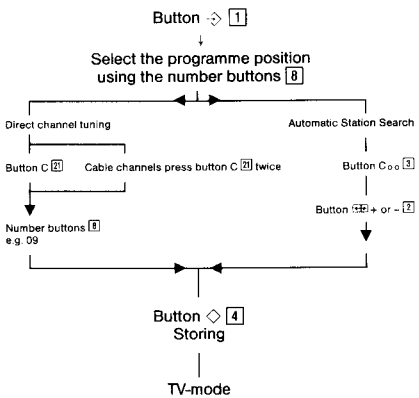
26 **Battery compartment (on the rear)**

1-2. TO PRESET CHANNELS

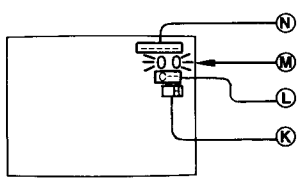
Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels.
There are two different ways of tuning in channels:

1. Direct Channel Tuning
You know the channel number of a station and can input it directly.

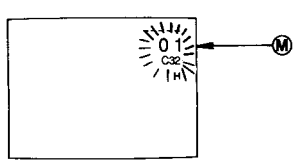
2. Automatic Station Search
The set searches automatically for stations (including cable channels).


Button ⇨ 1
Select the programme position using the number buttons 8
Direct channel tuning
Automatic Station Search
Button C 21
Cable channels press button C 21 twice
Button C∘∘ 3
Button + or - 2
Number buttons 8 e.g. 09
Button ◇ 4 Storing
TV-mode

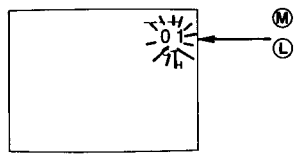
1. Direct Channel Tuning
1. Press the Preset button ⇨ 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓜ starts blinking.



2. With the buttons PROGR +/- 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first the button -/-- 9 and then the two number buttons.

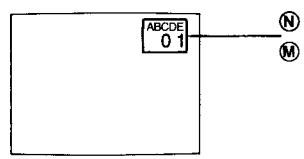


3. Press button **C** 21. The indication »C« and the channel number start blinking in the display Ⓛ. Select the channel number with two digits (e.g. 04) using the number buttons 8.



If you want to select a cable channel press button **C** 21 twice. In this case the indication »S« will appear in the display Ⓛ. Select the channel number as described above.

4. Press the button ◇ 4 in order to store the channel and to return to the TV-mode.



If you want to store further channels, repeat the steps 1 to 4.

2. Automatic Station Search

1. Press button ⇨ 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓜ starts blinking.

2. With the PROGR buttons +/- 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first button -/-- 9 and then the two number buttons.

3. If there is already a stored station on the selected programme position, press button **C∘∘** 3.

4. Press one of the tuning buttons + +/- 2 to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.

5. If you have found the desired station, press button ◇ 4. Now the selected station is stored and you are back in the TV-mode.

6. If you want to store further stations, repeat the steps 1-5.

Skipping of unused programme positions
Using button **C∘∘** 3 you have the possibility to have unused programme positions (e.g. without a stored station) skipped, when pressing the buttons PROGR +/- 24 on the Remote Commander.

1. Press button ⇨ 1. You are now in the preset mode of the set.

2. Use the buttons PROGR +/- 24 to select the programme position, which you want to have skipped.

3. Press button **C∘∘** 3.

4. Press button ◇ 4 to store the cleard programme position and to return to the TV-mode.

The skipped programme positions still appear when you press the number buttons 8 on the Remote commander.

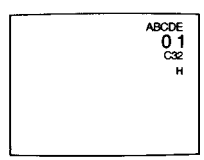
If you want to name a station
After presetting the stations you have the possibility to name them. The selected name will appear in the on-screen display Ⓝ.

1. Press the preset button ⇨ 1.

2. Press the button 12. The first column of the station name starts blinking. Press either button + or - 12 and select the desired character (number or letter, 0-9, A-Z, - for a blank column).

3. Press button 12 again. Now the second column starts blinking and you can select the second character.
In this way five characters can be selected.

4. Press button ◇ 4 to store the station name.



Notes

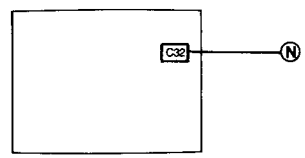
- If you press the preset button ⇨ 1 instead of button ◇ 4 the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an »x« will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

ADDITIONAL FUNCTIONS

Direct Channel Tuning in the TV-mode
You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels.
Example: You tune in channel number 32. If you switch the set off or change the programme position, this channel will be cancelled.

1. Press the button **C** 21. In the display Ⓝ the indication »C« will appear. For cable channels press the button **C** 21 twice. On the screen »S« will be displayed.

2. Select the channel number with two digits using the number buttons 8 (e.g. for channel 4 press first 0, then 4). The indication on the screen will disappear within some seconds.



Manual Fine Tuning
If the reception of a channel is not satisfactory, you have the possibility to deactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture.
Press one of the tuning buttons + +/- 2 to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

Operation

1 Select the TV channel for the desired teletext service. When the signal is weak, teletext errors often occur.
2 Press ▤/▨ (TEXT/MIX) to display the teletext service.
3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.
The requested teletext page is displayed.

To return to the TV mode, press TV on the Remote Commander.

The teletext service can be displayed directly from the standby mode by pressing ▤/▨ (TEXT/MIX).

To receive the teletext service of a different TV channel
1 Press TV to return to the TV mode.
2 Select the desired TV channel.
3 Press ▤/▨ (TEXT/MIX).

To request the index page
Press ▤ (INDEX).
If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press ⏩ (PAGE +) or ⏪ (PAGE –).

To superimpose the teletext display on the picture
Press ▤/▨ twice from the TV mode.
Press ▤/▨ again to return to the TEXT display.

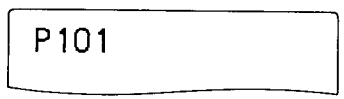
To suppress the teletext display so that the TV picture is displayed
Press ⏻ (TEXT CL).
This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page from being updated/changed
Press ⏸ (HOLD). The HOLD symbol appears on the screen.
To resume normal teletext reception, press ▤/▨ (TEXT/MIX).

To enlarge the teletext display
Press ⏏ once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

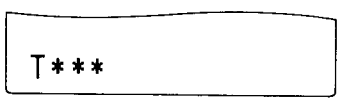
To reveal concealed information such as answers to a quiz
Press ❓ (REVEAL).
Press again to conceal the answers.

To watch the TV programme while waiting for a requested page to be displayed
1 Request the new page.
2 Press ⏻ to watch the TV programme.
The requested page number and other data appear at the top of the screen. When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.

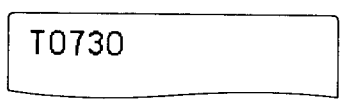


To view this page, press ▤/▨.

To have a requested page displayed at a pre-determined time
1 Request a time coded page (e.g. alarm page).
2 Press ⏲ (TP ON).
"T * * * *" will appear at the bottom of the screen.



3 Enter your request time with the number buttons, using four digits. For example, 07 30.



To watch the TV programme until the requested time, press ⏻ (TEXT CL). At the requested time, the page number will be displayed at the bottom of the screen.
To view this page, press ▤/▨.
To cancel the request, first ensure that the teletext page is displayed, then press ⏻ (TP OFF).

FASTEXT Operation

FASTEXT Teletext enables you to access pages quickly and conveniently with one key operation.

When a FASTEXT page is broadcast a colour coded menu will appear at the bottom of the screen. Each coloured prompt relates to the coloured keys on the Remote Commander. Pressing on of these will select the page described by the prompt.

Selection may also be made by entering the three digit page number in the normal way.

Correct FASTEXT operation relies on the necessary signals being transmitted by the Broadcasting Authorities. It is possible that some Broadcasters will not support this transmission.

If FASTEXT is not transmitted, the decoder will operate as outlined above.

1-4. CONNECTING OTHER EQUIPMENT

To view the input picture
Press the ⊃ 15 button repeatedly until the desired input signal indication appears on the screen.

⊃ **1:** to view the audio and video signal input through the ⊃ **1** connector on the rear.

⊃ **1:** to view the RGB signal (i.e. from a computer, etc.) input through the ⊃ **1** connector.

⊃ **2:** to view the audio and video signal input through the ⊃ **2/▭** connector on the rear.

▭ **2:** to view the S video signal (from a VTR equipped with an S video output) input through the ⊃ **2/▭** connector.

⊃ **3:** to view the audio and video signal input through the ⊃ **3** connectors and the audio input jacks ⊃ (yellow, white and red) on the front.

▭ **3:** to view the S video signal input through the ⊃ **3** connectors on the front (4-pin connector and white and red phone jacks).

You can also select the desired input mode using the buttons on the front of the set. Select the ⊃ mode with the mode select (P→ ⊿ →⊃) button Ⓖ, then press +/– button.

To return to the TV mode, press the TV-button.

To select the signal to be output from the ⊃ 2/▭ connector
Press the ⊃ button 17, then 1, 2, 3 or the TV-button 16 while ⊃ is displayed, so that one of the following indications is displayed:

1 ⊃: The audio and video signal input through the ⊃ **1** connector is output from the ⊃ **2/▭** connector.

2 ⊃: The audio and video signal input through the ⊃ **2/▭** connector is output from the ⊃ **2/▭** connector.

3 ⊃: The audio and video signal input through the ⊃ **3** connectors is output from the ⊃ **2/▭** connector.

TV ⊃ **2:** The audio and video signal input through the ⊤ aerial terminal (i.e. usually the TV signal) is output from the ⊃ **2/▭** connector.

The indication will disappear after a few seconds.

Note

The TV-signal is always output at the EURO-AV connector ⊃ **1**.

To operate a Sony video equipment
The video operation buttons 6 on the Remote Commander can operate the VTRs and video disc players manufactured by Sony.

1. Switch the video selector to the desired position.
VIDEO 1: to operate Sony Betamax VTR and SLV 202 VHS.
VIDEO 2: to operate Sony 8 mm VTR.
VIDEO 3: to operate Sony VHS VTR.
MDP: to operate Sony video disc player including a multi disc player.

2. Press the operation button(s) to start operation.
PROGR +/–: to select the desired programme on the VTR.

◀◀ : to rewind the tape or to rapidly go back to the desired position on the disc

▶ : to start playback

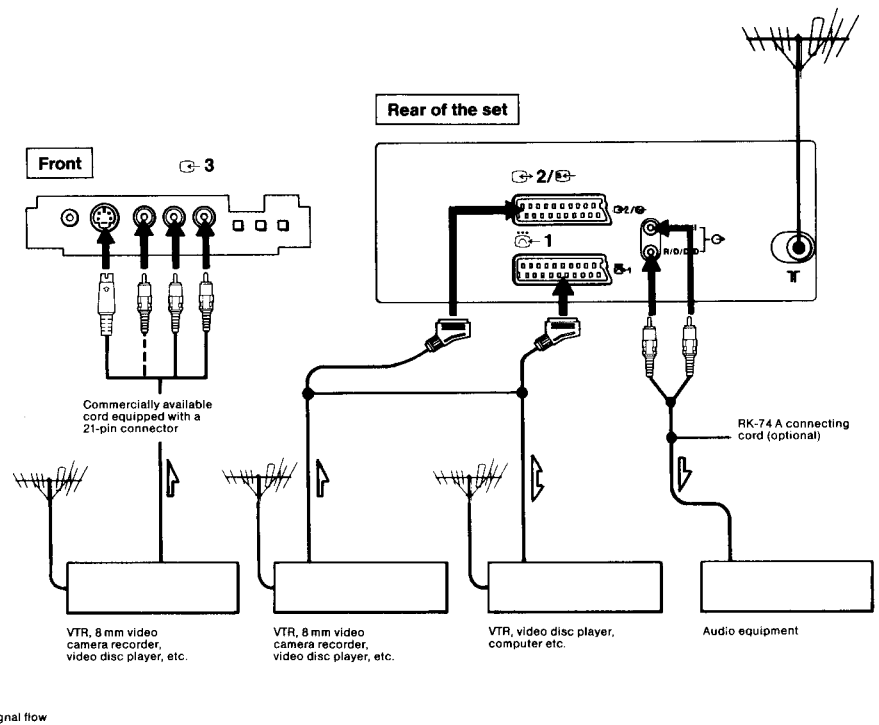
▶▶ : to advance the tape or the disc rapidly to the desired position

■ : to stop the tape or the disc, or to release the pause mode

● : to start recording on the VTR
Be sure to press this button and the one on the left simultaneously

⏻ : to switch the video equipment on and off

■■ : to stop the tape or the disc temporarily (pause)


Rear of the set
Front
3
2/
1
R/D/D/D
Commercially available cord equipped with a 21-pin connector
RK-74 A connecting cord (optional)
VTR, 8 mm video camera recorder, video disc player, etc.
VTR, 8 mm video camera recorder, video disc player, etc.
VTR, video disc player, computer etc.
Audio equipment
Signal flow

* Connect the S video output of the VTR, etc. here.
** To connect S video connectors (4-pin DIN), use an optional YC-15/YC-15 EV connecting cable.

Notes

- It is also possible to connect a VTR using the 1r terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the 1 input connector.

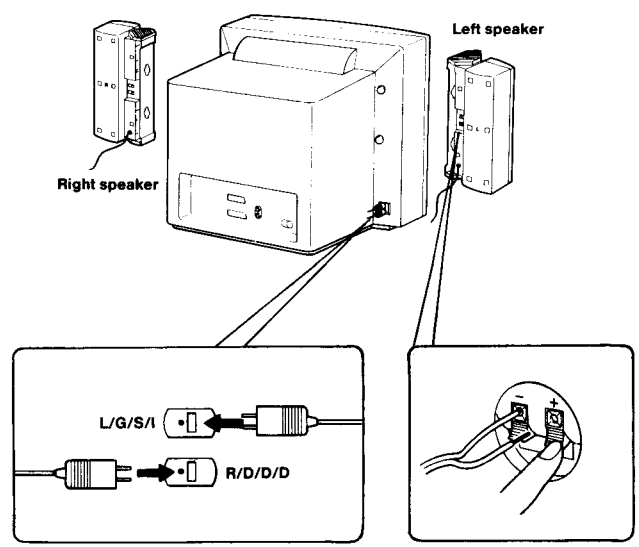
S video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevent them from interfering with one another, thereby improving picture quality (especially in luminance).
This set is equipped with two S video input jacks through which these separated signals can be input directly.
Connect one of the two S video output jacks on the VTR to the S video input on this set.

1-5. HOW TO ATTACH THE SPEAKERS

	KV-D 2912 U
1	Attach the right and left speakers on the sides of the set.
2	Connect the supplied speaker cords to the terminals on the speakers: the white striped cord to the + (red) terminal and the non-striped cord to the – (black) terminal.
3	Connect the left speaker cord to the L/G/S/I terminal and the right speaker cord to the R/D/D/D terminal on the rear of the TV set.

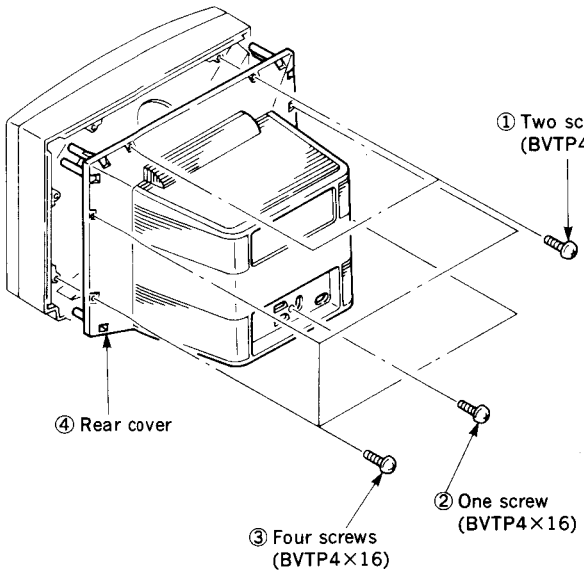
Note

Make sure that the set is turned off when you install the speakers.

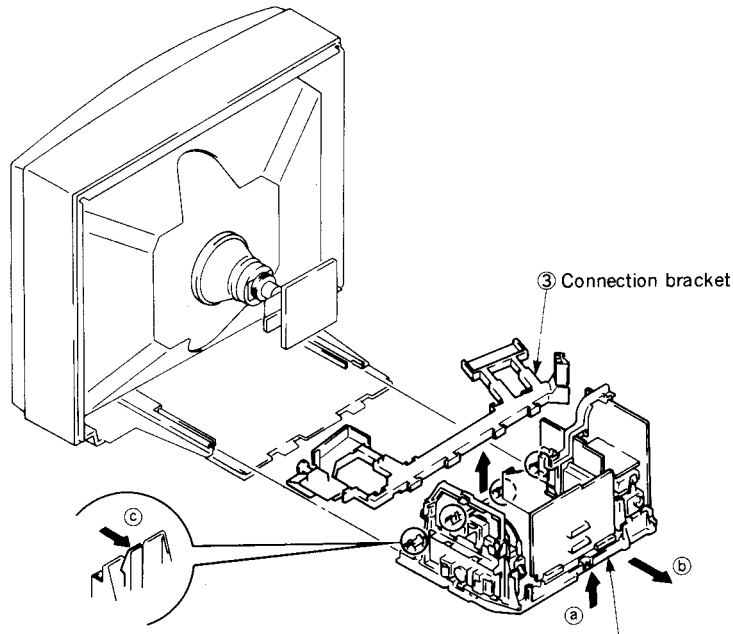


SECTION 2
DISASSEMBLY

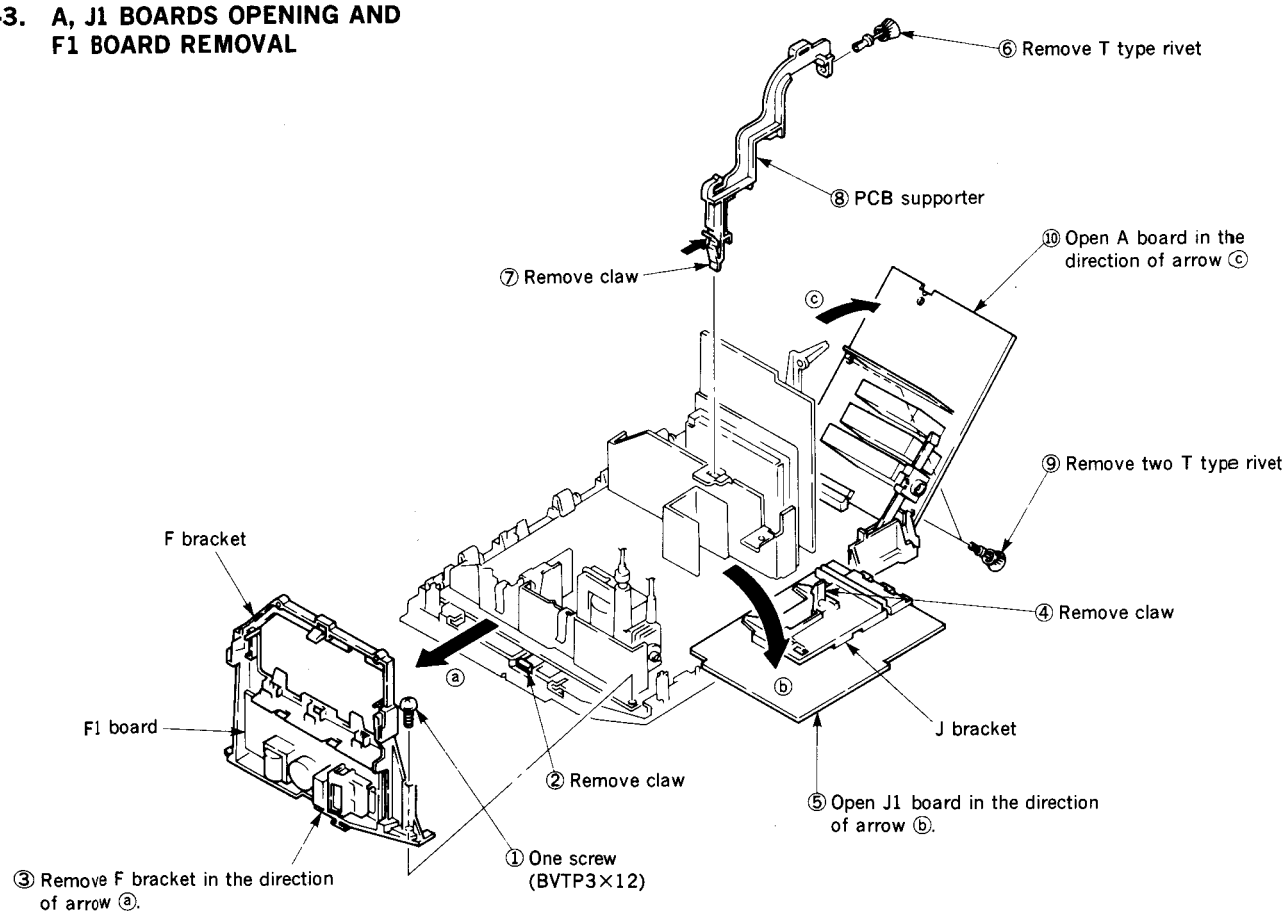
2-1. REAR COVER REMOVAL



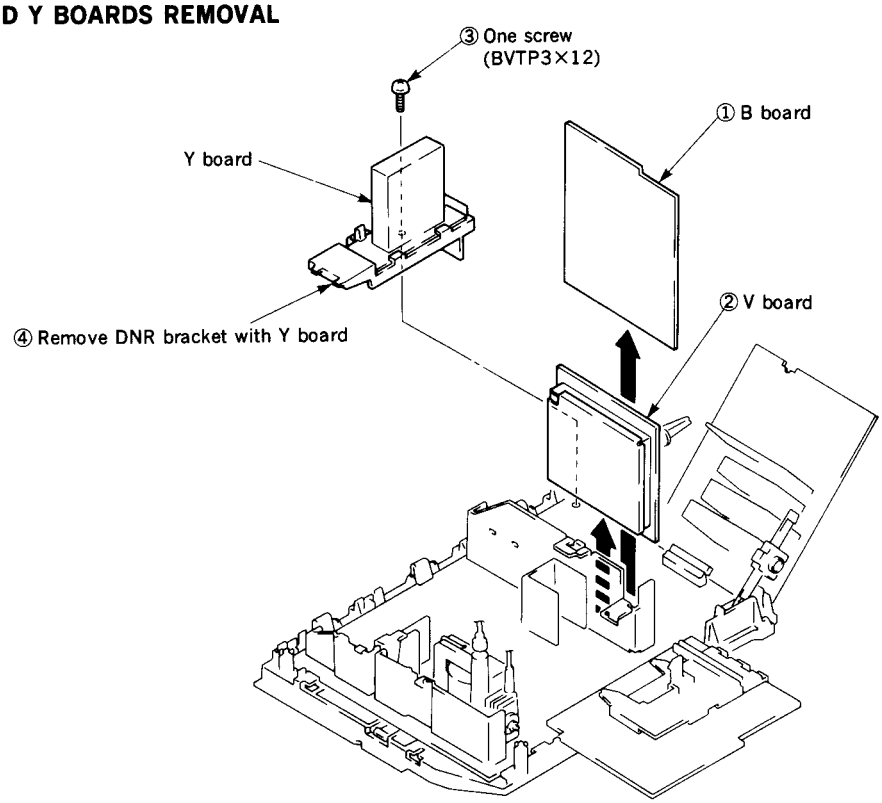
2-2. CHASSIS ASSY REMOVAL


③ Connection bracket
ⓒ
ⓑ
ⓐ
② Push four claws of the main chassis in the direction of arrow and remove the connector bracket.
① Lift and pull out the rear part of the main chassis toward the rear.

2-3. A, J1 BOARDS OPENING AND F1 BOARD REMOVAL

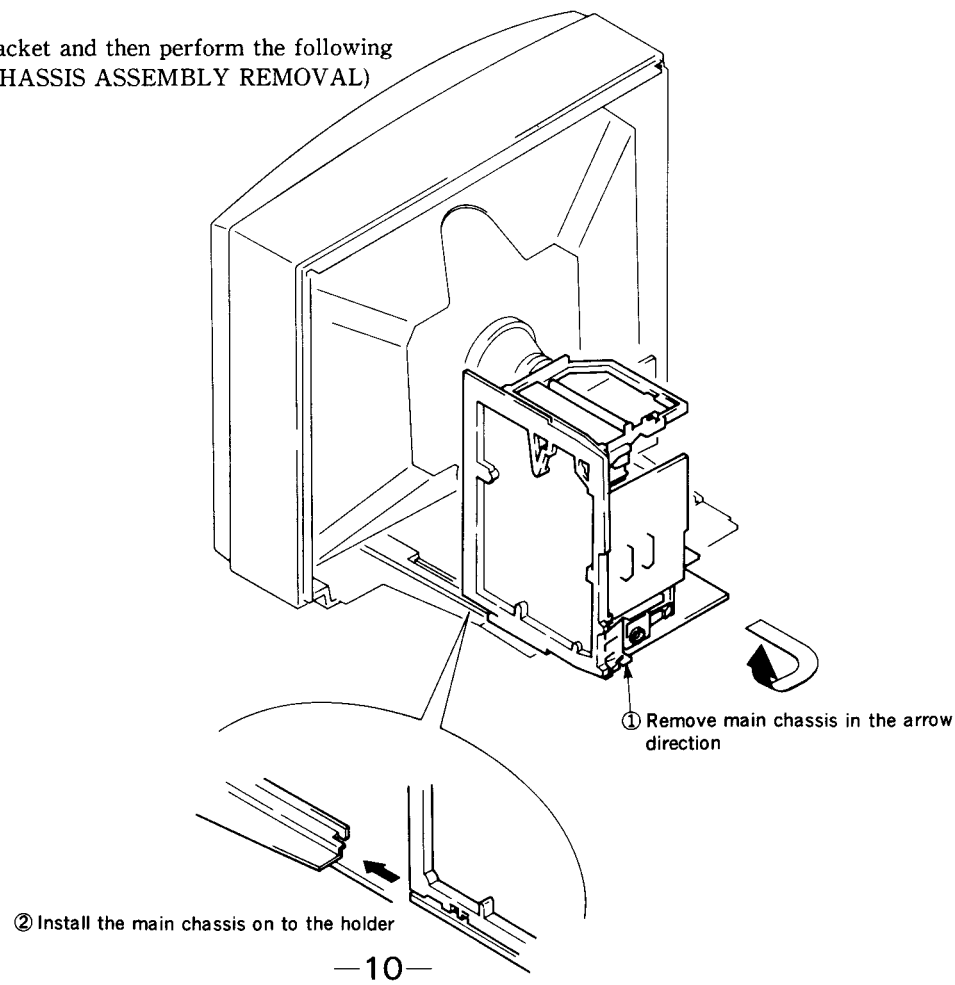


2-4. V, B AND Y BOARDS REMOVAL

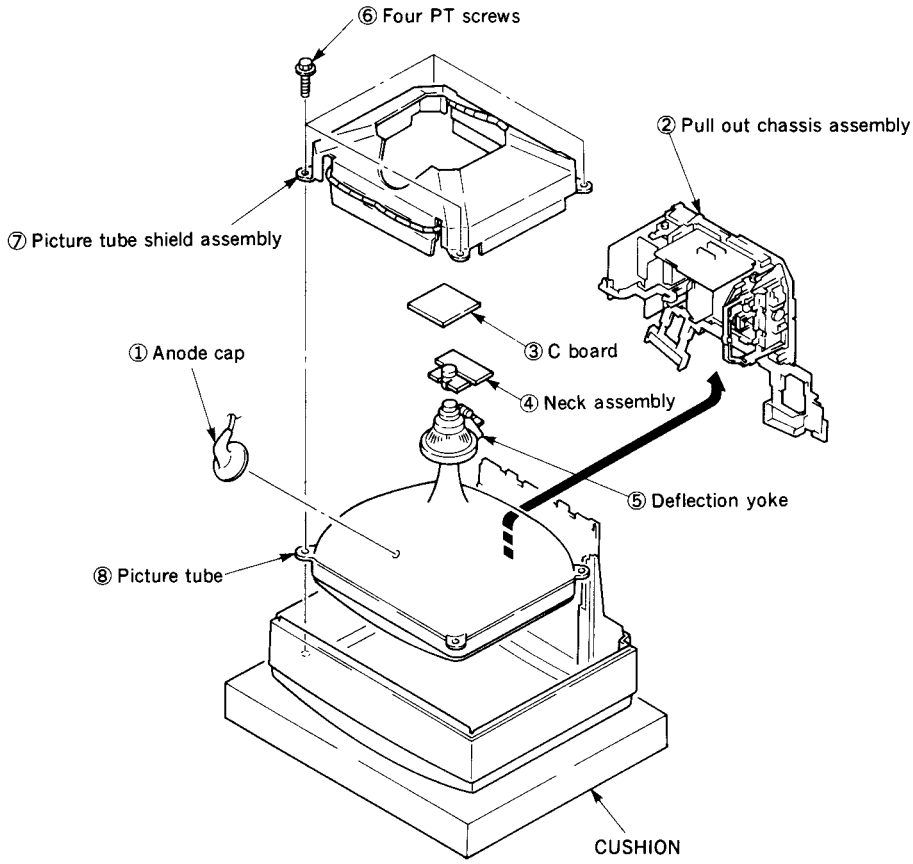


2-5. SERVICE POSITION

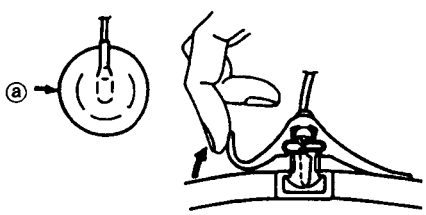
※Remove the connector bracket and then perform the following servicing (refer to 2-2. CHASSIS ASSEMBLY REMOVAL)



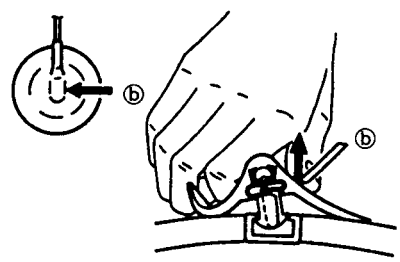
2-6. PICTURE TUBE REMOVAL



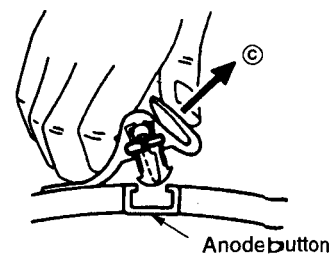
- **REMOVAL OF ANODE-CAP**
- **REMOVING PROCEDURES**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



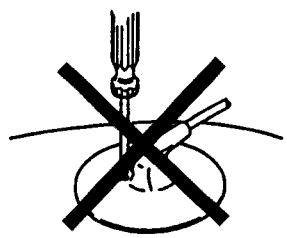
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

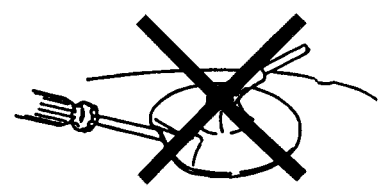


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

- **HOW TO HANDLE AN ANODE-CAP**

① Don't hurt the surface of anode-caps with sharp shaped material!
② Don't press the rubber hardly not to hurt inside of anode-caps!
A metal fitting called as shatter-hook terminal is built in the rubber.
③ Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or hurt the rubber.





SECITON 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
  - ◑ Contrast ·····80%
    (or remote control normal)
  - ☼ Brightness ·····50%

- Carry out the following adjustments in this order:
  1. Beam landing
  2. Convergence
  3. Focus
  4. White balance

Note : Testing equipment required
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations :
- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
   Contrast
   Bightness } normal
2. Position neck ass'y as shown in Fig 3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.
   (See Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctry in all the corners, use a magnet to adjust it.
   (See Figure 3-4.)

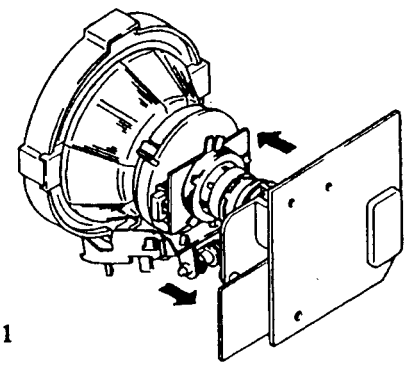
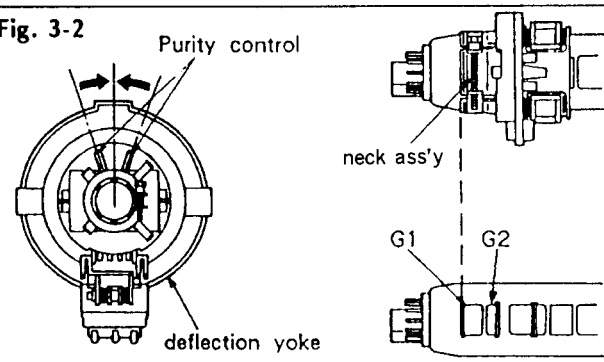


Fig. 3-1

Fig. 3-2



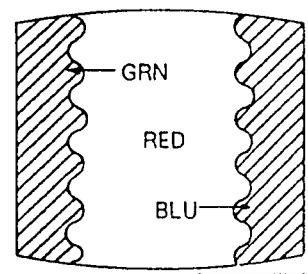


Fig. 3-3

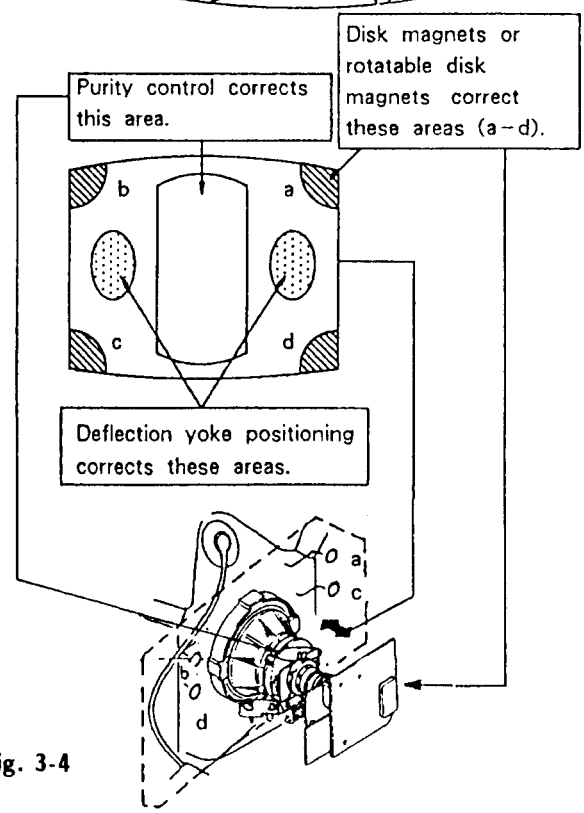


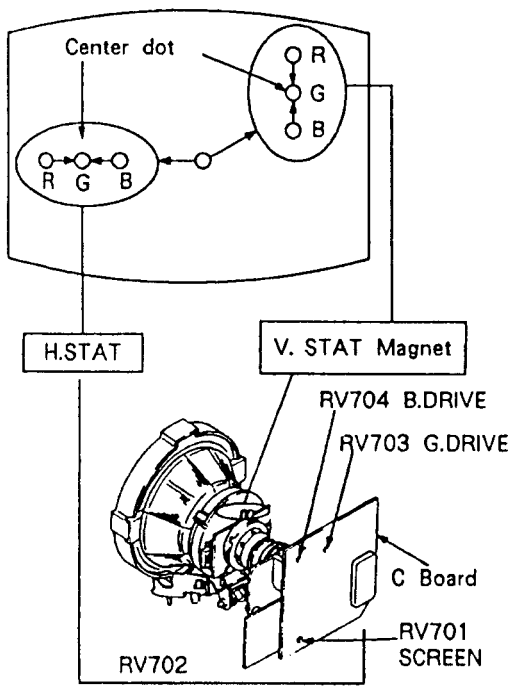
Fig. 3-4

3-2. CONVERGENCE

Preparations :

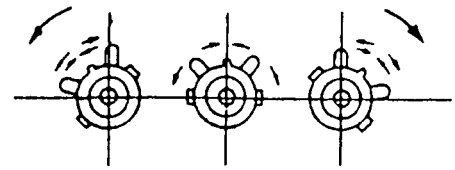
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

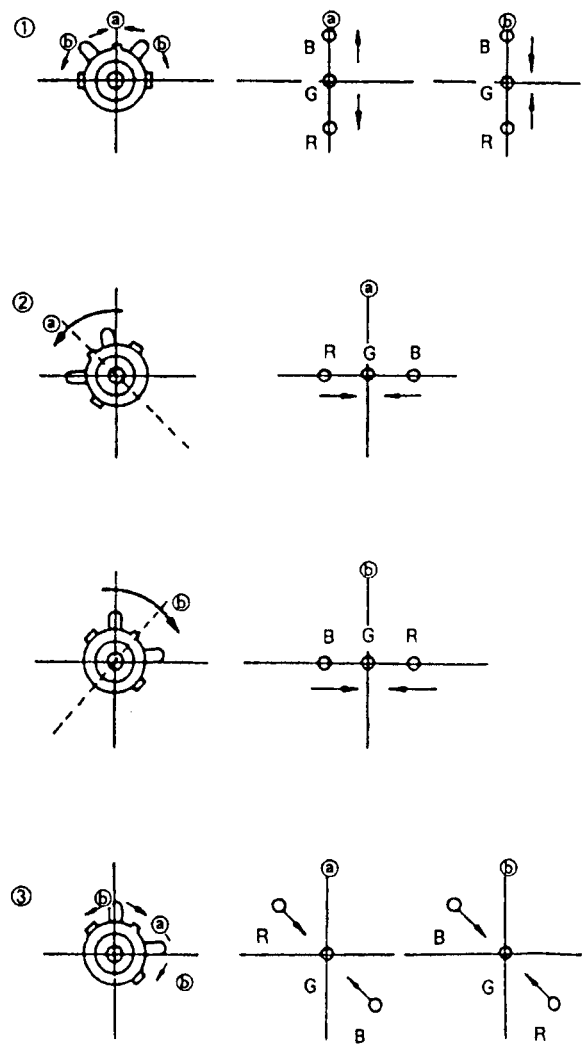


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other's settings.)

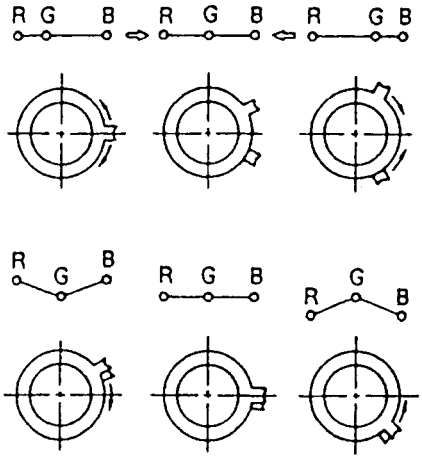
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

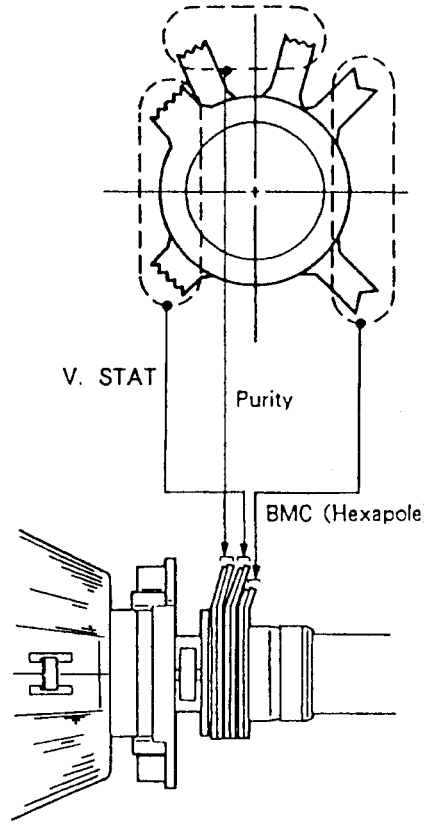


4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet





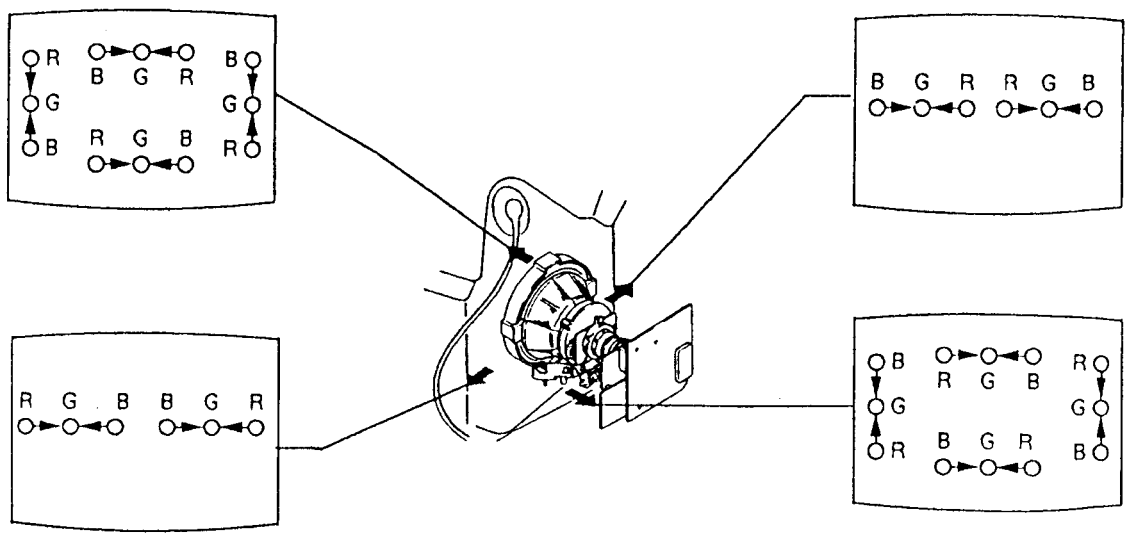
- The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic convergence adjustment

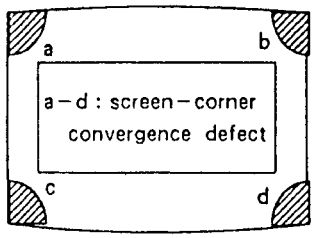
Preparations :

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

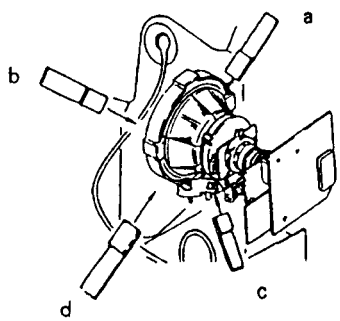
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the defelection yoke spacer.



(3) Screen corner convergence



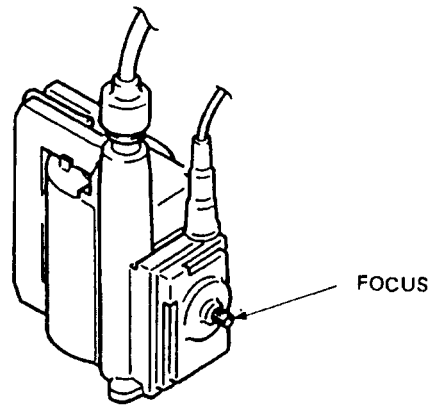
Install the permalloy assembly for the section with faulty.



Permalloy

3-3. FOCUS

Adjust the focus to optimize the screen.



3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture and brightness control to its lowest level.
3. Apply 170V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

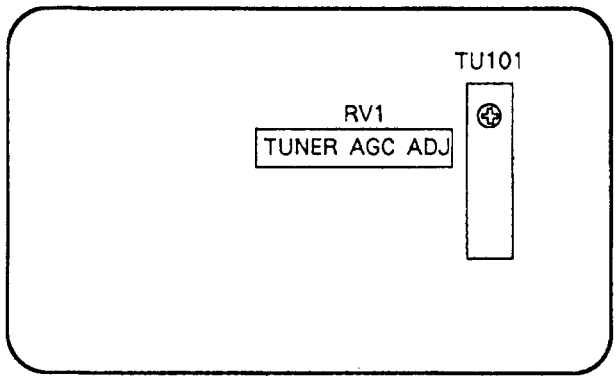
[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV704 (B Drive) and RV703 (G Drive) to adjust white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. A BOARD ADJUSTMENT

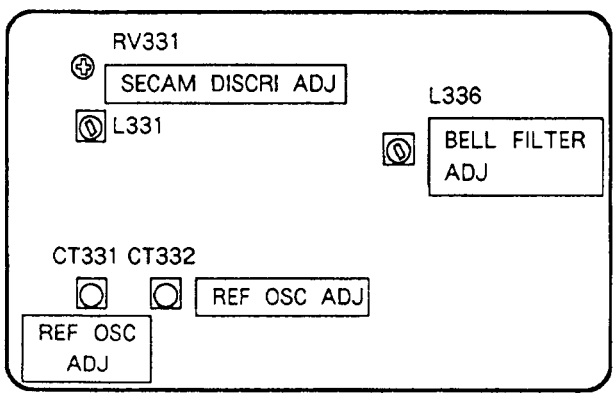


(COMPONENT SIDE)

TUNER AGC ADJUSTMENT (VIF101, RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

4-2. B BOARD ADJUSTMENTS



(COMPONENT SIDE)

REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8MHz)

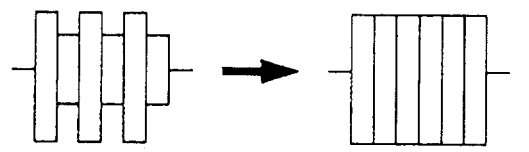
1. Input a PAL color bar signal.
2. Ground pin ⑰ of the IC331.
3. Adjust CT332 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16MHz)

1. Input an NTSC color bar signal.
2. Ground pin ⑰ of IC331.
3. Adjust the CT331 to obtain synchronization.
4. Remove the jumper grounding pin ⑰ of IC331.

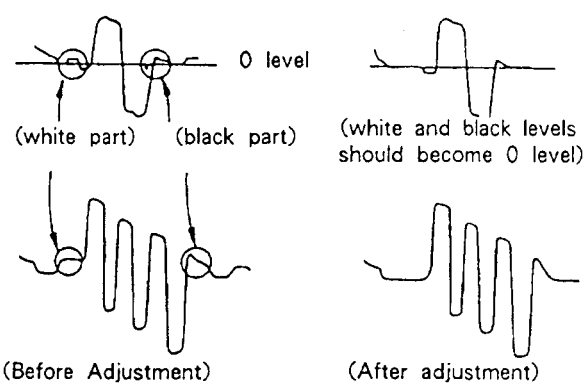
BELL FILTER ADJUSTMENT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.

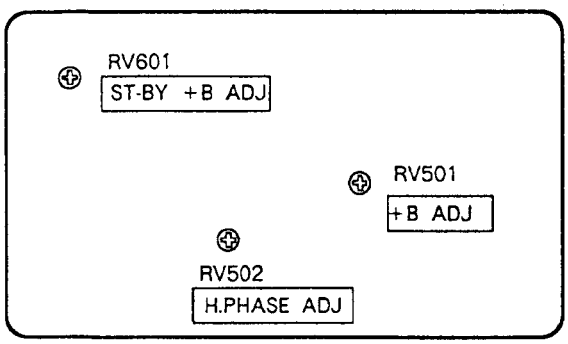


DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the waveform at pin ① come to the 0 level.
4. Connect the oscilloscope to pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the waveform at pin ③ come to the 0 level.



4-3. D BOARD ADJUSTMENTS



+B ADJUSTMENT (RV501)

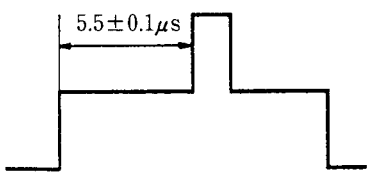
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain 135±0.2V.

ST-BY +B ADJUSTMENT (RV601)

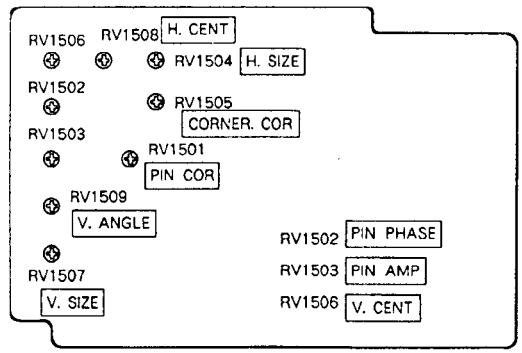
1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain 135±3V.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

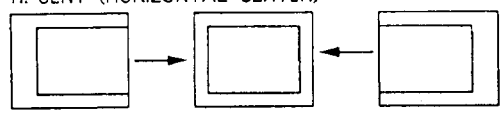
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H.CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC 501.
5. Rotate RV502 to adjust to 5.5±0.1μs.



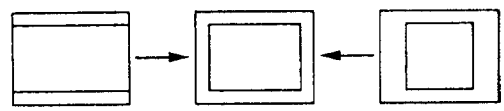
4-4. J1 BOARD ADJUSTMENTS



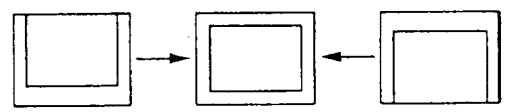
RV1508
H. CENT (HORIZONTAL CENTER)



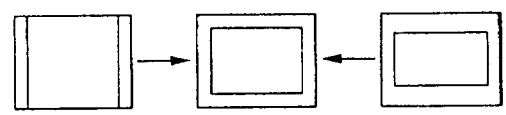
RV1504
H. SIZE (HORIZONTAL SIZE)



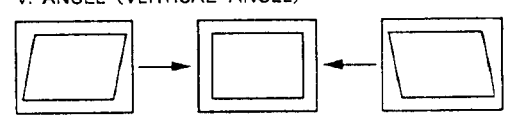
RV1506
V. CENT (VERTICAL CENTER)



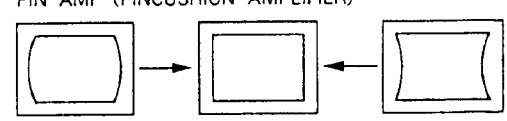
RV1507
V. SIZE (VERTICAL SIZE)



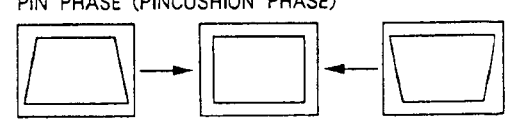
RV1509
V. ANGLE (VERTICAL ANGLE)



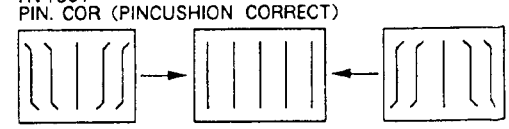
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



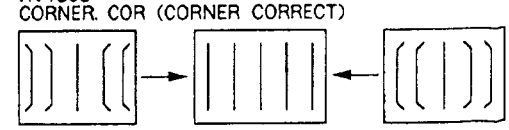
RV1502
PIN PHASE (PINCUSHION PHASE)



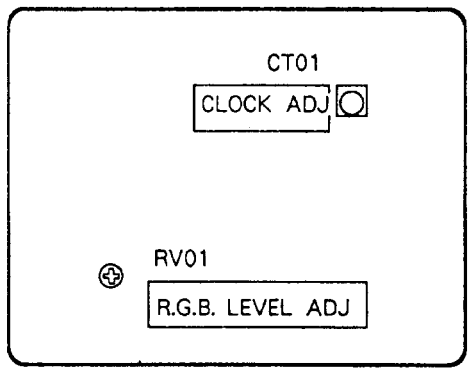
RV1501
PIN. COR (PINCUSHION CORRECT)



RV1505
CORNER. COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS



CLOCK ADJUSTMENT (CT101)

1. Remove the V-1 connector.
2. Put the system into text mode.
3. Adjust CT01 so that the picture does not move.

RGB LEVEL ADJUSTMENT

1. Maximize the picture setting.
2. Adjust RV01 so that the RGB output is 0.75V.

4-6. SECONDARY ADJUSTMENT

SUB BRIGHTNESS ADJUSTMENT

1. Set the system to receive a test pattern.
2. Press →•← on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Minimize the ◑ contrast setting.
6. Adjust the ☼ brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
7. Depress the ◇ (store) button of the remote commander.
   (SUB mode is released)

If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal mode.
   Set the color to its normal state.

3-5. are the same as above.

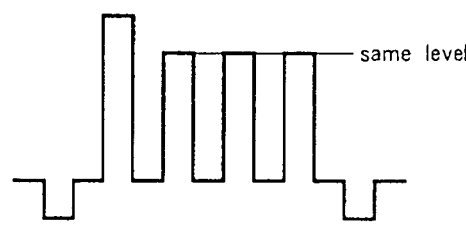
6. Since 20 IRE is nearly blue, adjust the ☼ brightness control so that the blue barely glows.

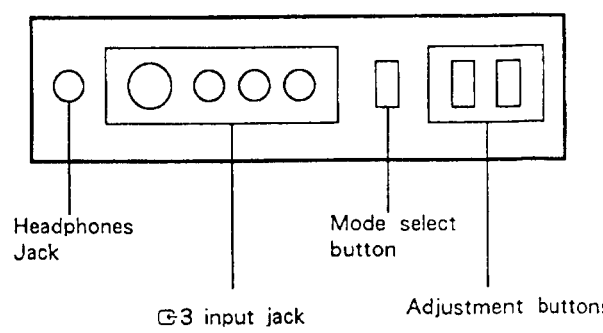
7. is the same as above.

8. Press →•← on the remote commander to put the system into normal mode.

SUB COLOR ADJUSTMENT

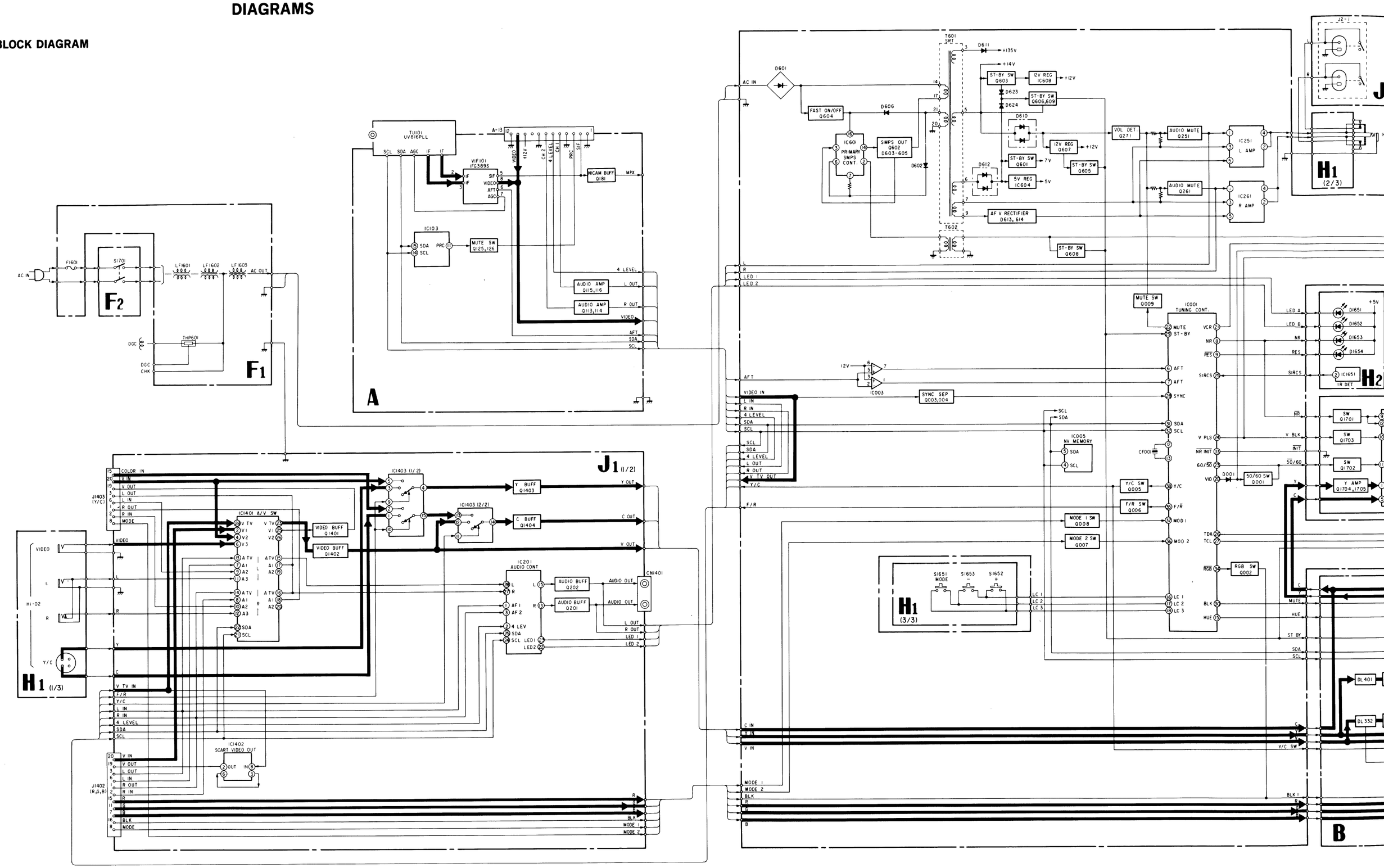
1. Set the system to receive color bars.
2. Press →•← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjustment buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out waveform (pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)

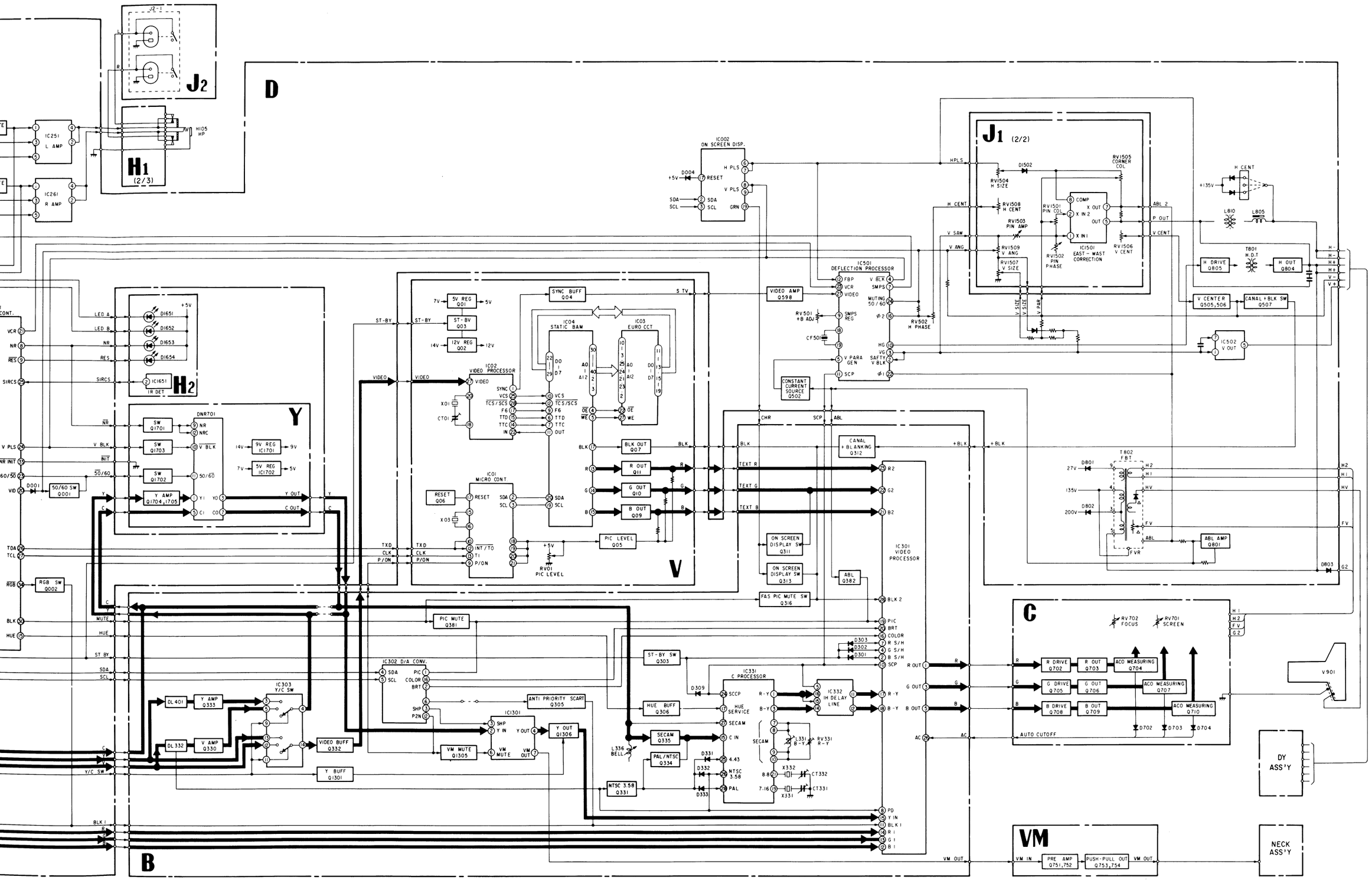




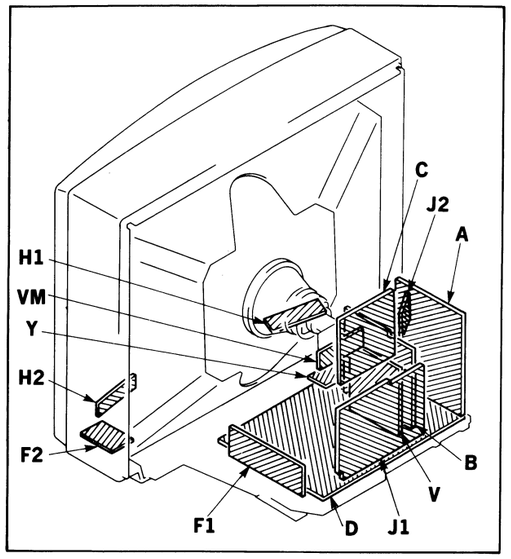
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM




D
J2
H1 (2/3)
IC251 L AMP
IC261 R AMP
H105 HP
J1 (2/2)
IC002 ON SCREEN DISP.
IC501 DEFLECTION PROCESSOR
IC501 EAST - WAST CORRECTION
H DRIVE Q805
H OUT Q804
T801 H.D.T
V CENTER Q505,506
CANAL + BLK SW Q507
IC502 V OUT
T802 FBT
D801
D802
D803
ABL AMP Q801
ABL Q382
Y
DNR701
SW Q1701
SW Q1703
SW Q1702
Y AMP Q1704,1705
9V REG IC1701
5V REG IC1702
50/60 SW Q001
RGB SW Q002
H2
DI651
DI652
DI653
DI654
IC1651 IR DET
5V REG Q01
ST-BY Q03
12V REG Q02
IC02 VIDEO PROCESSOR
IC04 STATIC RAM
IC03 EURO CCT
SYNC BUFF Q04
IC01 MICRO CONT.
RESET Q06
PIC LEVEL Q05
BLK OUT Q07
R OUT Q11
G OUT Q10
B OUT Q09
V
VIDEO AMP Q598
CONSTANT CURRENT SOURCE Q502
CANAL + BLANKING Q312
ON SCREEN DISPLAY SW Q311
ON SCREEN DISPLAY SW Q313
FAS PIC MUTE SW Q316
IC301 VIDEO PROCESSOR
C
RV702 FOCUS
RV701 SCREEN
R DRIVE Q702
R OUT Q703
ACO MEASURING Q704
G DRIVE Q705
G OUT Q706
ACO MEASURING Q707
B DRIVE Q708
B OUT Q709
ACO MEASURING Q710
D702
D703
D704
AUTO CUTOFF
V901
DY ASS'Y
NECK ASS'Y
VM
VM IN
PRE AMP Q751,752
PUSH-PULL OUT Q753,754
VM OUT
B
IC303 Y/C SW
Y AMP Q333
V AMP Q330
VIDEO BUFF Q332
Y BUFF Q1301
IC302 D/A CONV.
ANTI PRIORITY SCART Q305
IC1301
Y OUT Q1306
VM MUTE Q1305
PIC MUTE Q381
ST-BY SW Q303
HUE BUFF Q306
SECAM Q335
PAL/NTSC Q334
NTSC 3.58 Q331
IC331 C PROCESSOR
IC332 1H DELAY LINE
L336 BELL
L331 B-Y
RV331 R-Y
X332
X331
CT332
CT331
PIC LEVEL Q1301
RV501 +B ADJ
RV502 H PHASE
RV503 PIN AMP
RV504 H SIZE
RV505 CORNER COL
RV506 V CENT
RV507 V SIZE
RV508 H CENT
RV509 V ANG
RV501 PIN COL
RV502 PIN PHASE
L805
L810

5-2. CIRCUIT BOARD LOCATION



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note :

- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm Rating electrical power : 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000k Ω
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- ▭ : adjustment for repair.
- Voltage variations may be noted due to normal production tolerances.
- ▬ : B + line.
- ▒ : signal path.

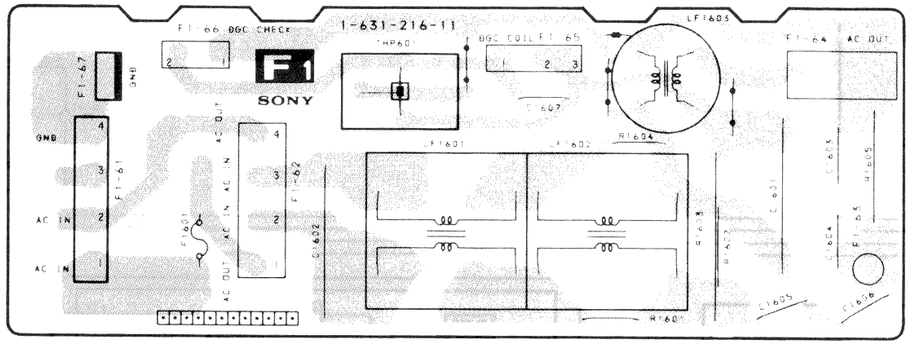
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✱	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

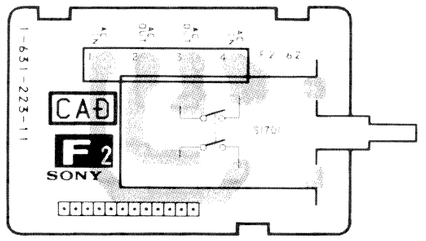
F1 [LINE FILTER, DGC] **F2** [POWER SWITCH] **H1** [CONTROL SW, AV INPUT, HEADPHONE] **H2** [SIRCS RECEIVER, INDICATOR]

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS — Conductor Side —

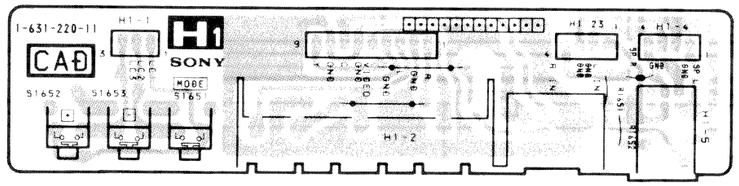
— F1 Board —



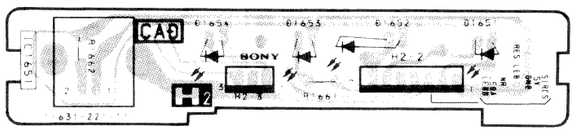
— F2 Board —



— H1 Board —

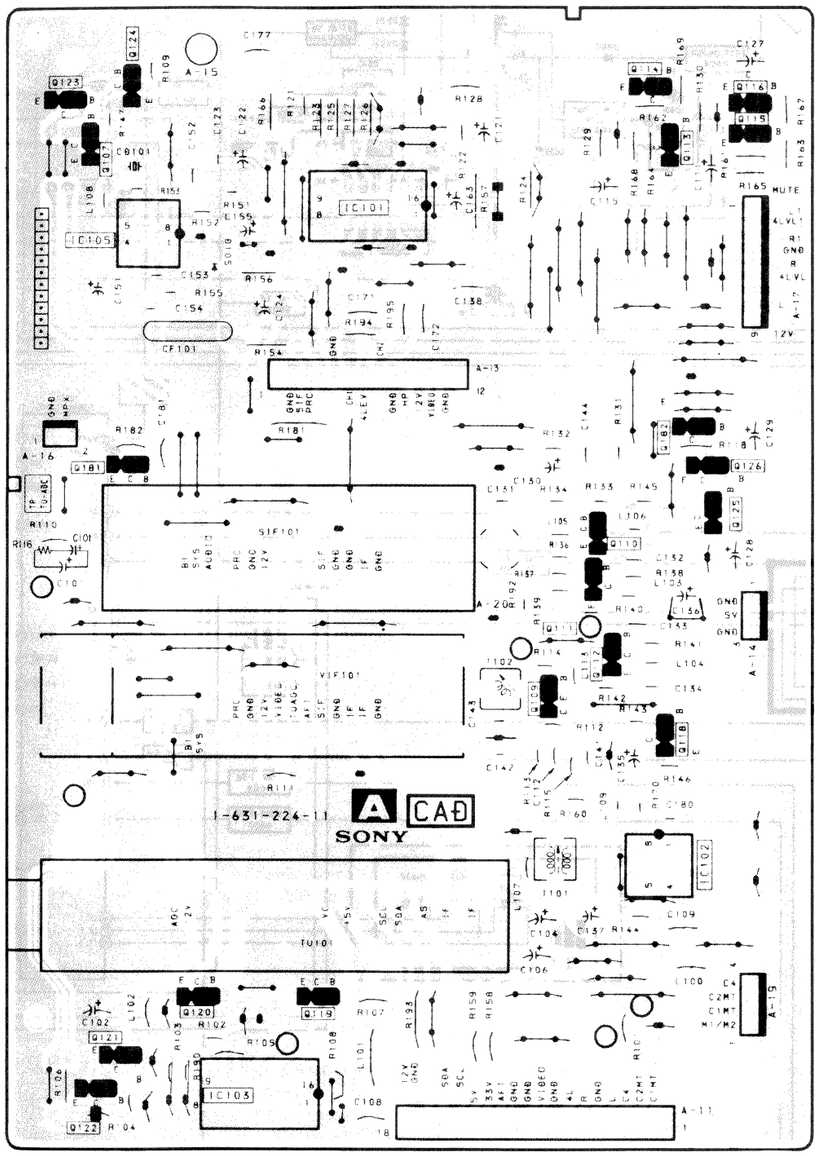


— H2 Board —

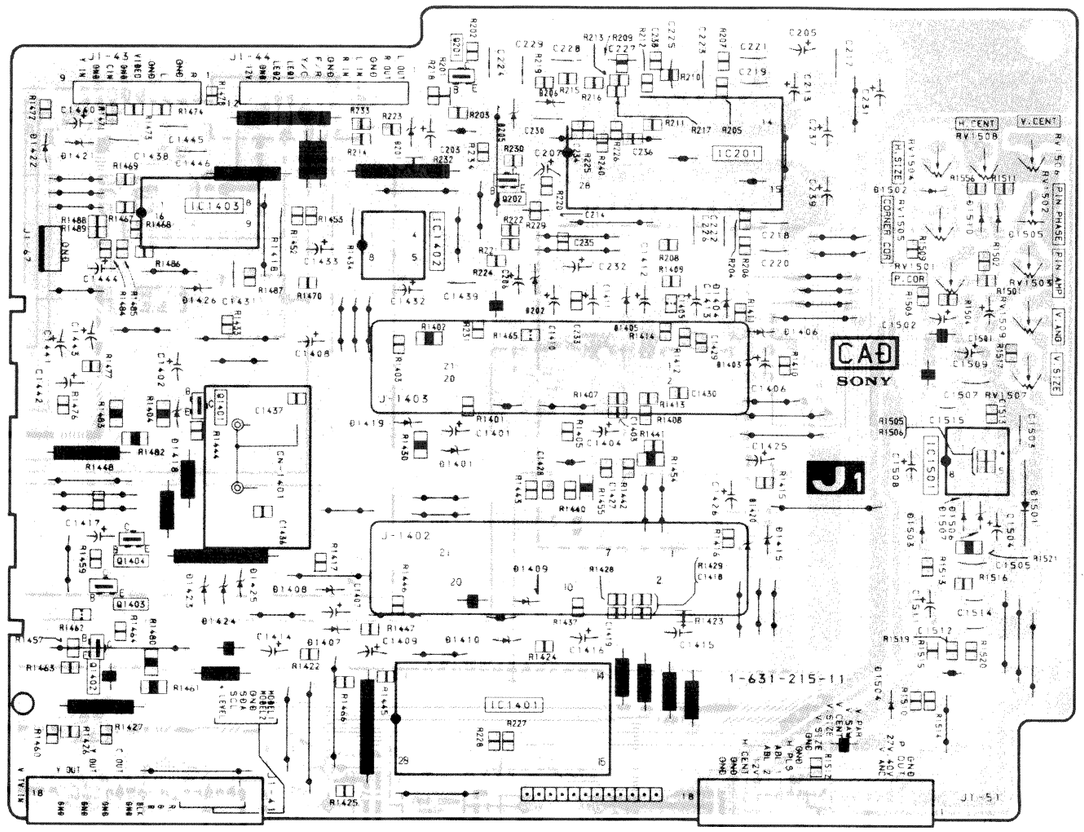


[TUNER, VIF, SIF] **A** **J1** [AUDIO CONTROL, AV INPUT, Y/C INPUT, SCART VIDEO OUT, EAST-WEST CORRCTION] **J2** [SPEAKER TERMINAL] **Y** [NOISE REDUCTION]

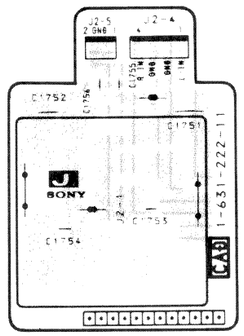
— A Board —



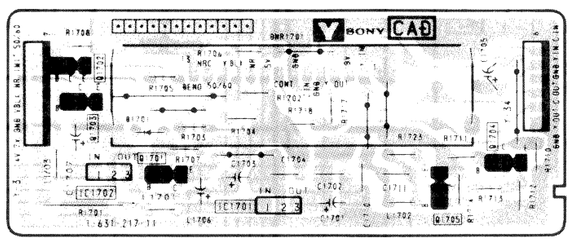
— J1 Board —



— J2 Board —



— Y Board —



AC IN
220-240V
50HZ

F1601
T4.0A

F1-61
4P
WHT-L
:VH

TO J1 BOARD
J1-67

F1-67
3P
WHT
:S-MICRO

TO F2 BOARD
F2-62

F1-62
4P
WHT
:VH

R1601 47k
R1602 1M 1/2W
R1603 2.7 7W :RW
R1604 47k
R1605 8.2M 1W
LF1601
LF1602
LF1603
C1601 0.33 300V :MPS
C1602 0.47 300V :MPS
C1603 0.0047 400V E
C1604 0.0047 400V E
C1605 0.0047 400V E
C1606 0.0047 400V E
C1607 0.0047 250V F
THP601

F1-64
3P
WHT
:VH
TO Ð BOARÐ
Ð-64

F1-65
3P
WHT
:MINI
TO ÐGC

F1-66
2P
WHT
:MINI

F1-63
1P
WHT
:LARGE
TO Ð BOARÐ
Ð-63

F1

(LINE FILTER, ÐGC)

H1

(CONTROL SW, AV INPUT, HEADPHONE)

S1652
S1653
S1651
MODE

H1-1
3P
WHT
:S-MICRO
TO Ð BOARÐ Ð-1
LC3
LC2
LC1

H1-43
9P
WHT
:S-MICRO
TO J1 BOARÐ J1-43
R OUT
GNÐ
L OUT
GNÐ
VIÐEO OUT
GNÐ
C OUT
GNÐ
Y OUT

H1-02
R
L
VIÐEO
Y/C

H1-23
4P
BLK
:S-MICRO
TO Ð BOARÐ Ð-23
L IN
GNÐ
GNÐ
R IN

H1-05
HP

R1651 470 1/4W
R1652 470 1/4W
AUÐIO L
AUÐIO R

SP L
GNÐ
GNÐ
SP R

H1-4
4P
WHT
:S-MICRO
TO J2 BOARÐ J2-4

H2

(SIRCS RECEIVER INÐICATOR)

LEÐB
LEÐA
NR
RES.LED
GNÐ
5V
SIRCS

TO H1 BOARÐ
H1-4

F2

S1701
POWER

(POWER SWITCH)

F2-62
7P
WHT-L
:VH
AC IN
AC OUT
AC OUT
AC IN

TO F1 BOARÐ
F1-62

J1-67
3P
WHT-L
:S-MICRO
TO F1 BOARÐ
F1-67
GNÐ
GNÐ
GNÐ

C1436 0.001 B:CHIP
C203 2.2 50V
R223 1k :CHIP
R232 10k :CHIP
CN1401
C206 2.2 50V
R224 1k :CHIP
C1437 0.001 B:CHIP
R231 10k :CHIP
Ð201 RÐ9.1ESB3 PROT
Ð202 RÐ9.1ESB3 PROT
AUÐIO R
AUÐIO L

Q201 2SC2712G AUÐIO R BUFF
Q202 2SC2712G AUÐIO L BUFF
R201 56k :CHIP
R202 12k :CHIP
R203 12k :CHIP
R233 2.2k :CHIP
R230 56k :CHIP
R229 12k :CHIP
R234 2.2k :CHIP
R220 5.6k :CHIP

C205 4.7 50V
C213 22 50V
C207 4.7 50V
C239 470 16V
12V

C224 0.01 400V :MPS
C209 22k :CHIP
C227 0.022 250V :MPS
C212 22k :CHIP
R213 15k :CHIP
R215 22k :CHIP
C229 0.015 400V :MPS
C219 0.022 250V :MPS
C221 0.0033 100V :PT
C238 220p :CHIP
R216 22k :CHIP
C228 0.033 250V :MPS
R219 10k :CHIP
C230 0.015 400V :MPS
C217 0.0068 400V :MPS
C225 0.47 50V :MPS
R210 15k :CHIP
C223 0.056 100V :MPS
R211 100k :CHIP
Ð206 RÐ7.5ESB3 PROT
C236 470p B:CHIP
R226 1k :CHIP
C231 0.47 50V
Ð205 RÐ7.5ESB3 PROT
R205 33k :CHIP
R207 3.3k :CHIP
R217 15k :CHIP
R225 1k :CHIP
R240 220 :CHIP
C234 470p B:CHIP
C237 0.47 50V
C235 470p B:CHIP
C233 470p B:CHIP
C232 10 50V
C222 0.056 100V :MPS
R208 15k :CHIP
C226 0.47 50V :MPS
C214 0.0068 400V :MPS
C218 0.022 250V :MPS
C220 0.0033 100V :PT
R204 33k :CHIP
R206 3.3k :CHIP
R221 470 :CHIP
R222 470 :CHIP
R214 220 :CHIP
R218 220 :CHIP

IC201
ÐA6200
AUÐIO CTL
ÐCUP ROUT GND EXP TRE BASS BASS QOUT QIN RBASS SWOUT AF2IN 4LEL AF1IN
LOUT VCC EXP TRE BASS BASS LBASS LED2 LED1 SCL SÐA REF RIN LIN

IC1403
HÐ14053BP
COMPOSITE Y/C SW
Y1 Y0 Z1 Z0 X1 X0 A B C

C1444 47 50V
R1484 10k :CHIP
R1467 100 :CHIP
R1485 10k :CHIP
R1469 100 :CHIP
R1470 100 :CHIP
R1468 100 :CHIP
R1488 4.7k :CHIP
R1489 4.7k :CHIP
R1486 10k :CHIP
R1487 4.7k :CHIP

IC1401
CXA1114P
AV SW

R1466 220 :CHIP
R1446 220 :CHIP
R1447 220 :CHIP
R1445 82k :CHIP
C1409 22 50V
REG Ð1408 RÐ9.1ESB3
C1408 100 50V
R1418 82 1/2W :FPRÐ
C1410 10 50V
C1414 10 50V
R1422 100 :CHIP
R227 220 :CHIP
R1425 1k :CHIP
C1411 10 50V
R228 220 :CHIP
VIÐEO
Ð1407 RÐ10ESB3 PROT
C1407 47 50V
R1417 82 :CHIP
R1423 27k
C1415 0.47 50V
R1424 27k
C1416 0.47 50V
C1418 330p B:CHIP
C1419 330p B:CHIP
R1428 470k :CHIP

J-1403
21P
SCART
Y/C

GNÐ 21
V IN 20
V OUT 19
GNÐ 18
GNÐ 17
BLK 16
COLOUR IN 15
14
GNÐ 13
12
11
10
GNÐ 9
MOÐE 8
7
L IN 6
GNÐ 5
GNÐ 4
L OUT 3
R IN 2
R OUT 1

C1401 10 50V
R1401 82 :CHIP
R1402 68 1/8W :CHIP
R1403 47k :CHIP
C1402 470 16V
Ð1401 RÐ7.5ESB3 PROT
R1465 82 :CHIP
C1439 0.01 400V :MPS
Ð1426 RÐ7.5ESB3 PROT
R1405 10k :CHIP
R1407 470k :CHIP
C1404 0.47 50V
R1408 47k :CHIP
Ð1403 RÐ7.5ESB3 PROT
R1431 470 1/4W
C1403 330p B:CHIP
C1412 47 50V
R1409 470 :CHIP
R1432 470 1/4W
C1413 47 50V
C1406 0.47 50V
R1411 470 :CHIP
R1410 47k :CHIP
R1412 47k :CHIP
C1429 0.0047 F:CHIP
R1413 470k :CHIP
C1430 330p B:CHIP
R1414 47k :CHIP
C1405 0.0047 F:CHIP
Ð1404 RÐ7.5ESB3 PROT
Ð1405 RÐ7.5ESB3 PROT
Ð1406 RÐ7.5ESB3 PROT
Ð1415 RÐ7.5ESB3 PROT
Ð1420 RÐ7.5ESB3 PROT
R1404 150 1/8W :CHIP
R1482 150 1/8W :CHIP
R1483 150 1/8W :CHIP
Ð1409 RÐ9.1ESB3 PROT
Ð1410 RÐ9.1ESB3 PROT
R1464 2.7k :CHIP
Q1401 2SA1162G VIÐEO OUT BUFF
Ð1418 RÐ7.5ESB3 PROT
Q1402 2SC2712G VIÐEO OUT BUFF
R1462 2.2k :CHIP
R1463 1.8k :CHIP
C1417 220 16V
R1444 220 :CHIP
R1416 27k :CHIP
C1426 0.47 50V
R1415 27k :CHIP
C1425 0.47 50V
R1427 10 :CHIP
R1426 100 :CHIP
R1457 100 :CHIP

J1

(AUÐIO CONTROL, AV INPUT, Y/C INPUT, SCART VIÐEO OUT, EAST-WEST CORRCTION)

PIN PHASE
RV1502 10k
R1502 27k :CHIP
P.COR
R1505 22k :CHIP
R1504 33k :CHIP
C1513 33p :CHIP
R1503 470k :CHIP
C1502 10 50V
C1501 10 50V
PIN AMP
RV1501 470k
R1501 22k :CHIP
RV1503 22k
IC1501
TEA2031A
EAST-WEST CORRECTION
GNÐ IREF X IN 2 X IN 1
OUT VCC X OUT COMP
R1519 150k :CHIP
Ð1507 1SS133 PROT
R1521 4.7k 1/8W :CHIP
CORNER COR
Ð1506 RÐ36ESB4 PROT
RV1505 470k
ÐECOUPLTNG H SIZE
R1509 220k :CHIP
C1508 10 50V
R1513 56k :CHIP
C1511 10 50V
R1514 1k :CHIP
C1503 0.001 100V :PT
R1506 470k :CHIP
R1516 18k :CHIP
Ð1502 1SS133
RV1504 1k
H.SIZE
R1556 5.6k :CHIP
Ð1510 1SS133 REG
Ð1505 1SS133 REG
Ð1501 RGP10GPKG23 PROT
C1507 0.0033 100V :PT
R1511 1k :CHIP
R1510 5.6k :CHIP
Ð1503 1SS133 CLIPPING V PARABOLA
27V
C1505 0.047 100V :MPS
C1504 47 50V
R1512 10k :CHIP
Ð1504 1SS133
12V
CLIPPING H PULSE
V.SIZE
RV1507 220
RV1506 22k
V.CENT
H.CENT
V.ANG
RV1508 10k
R1517 220 :CHIP
RV1509 470k
R1550 1W :RF
R1520 390k :CHIP

J1-51
18P
BLK
:HINGE-S
GNÐ
GNÐ
H CENT
12V
ABL 2
ABL 1
H PLS
GNÐ
GNÐ
V SIZE
V SIZE
V CENT
V SAW
V PAR
V ANG
27V·40V
P OUT
GNÐ
TO Ð BOARÐ Ð-51

J1-41
18P
BLK
:HINGE-S
MODE 1
MODE 2
GNÐ
SÐA
SCL
4 LEVEL
R OUT
G OUT
B OUT
BLK
GNÐ
C OUT
GNÐ
Y OUT
GNÐ
V OUT
GNÐ
V TV IN
TO Ð BOARÐ Ð-41

H1-1 3P WHT :S-MICRO TO Đ BOARĐ Đ-1
3 LC3
2 LC2
1 LC1

H1-43 9P WHT :S-MICRO TO J1 BOARĐ J1-43
1 R OUT
2 GNĐ
3 L OUT
4 GNĐ
5 VIĐEO OUT
6 GNĐ
7 C OUT
8 GNĐ
9 Y OUT

H1-23 4P BLK :S-MICRO TO Đ BOARĐ Đ-23
AUDIO L
1 L IN
2 GNĐ
3 GNĐ
4 R IN

1 SP L
2 GNĐ
3 GNĐ
4 SP R
TO J2 BOARĐ J2-4

H1-4 4P WHT :S-MICRO
ĐIO R

(SIRCS RECEIVER) INĐICATOR
H2
Đ1651 SEL1222R AUDIO CHANNEL A INĐICATOR
Đ1652 SEL1222R AUDIO CHANNEL B INĐICATOR
Đ1653 SEL1222R NR ON-OFF INĐICATOR
R1661 470
Đ1654 LĐ-201VR STBY INĐICATOR
IC1651 BX1387 INFRARED RECEIVER
R1662 470
5V
LEĐB LEĐA NR RES.LEĐ GNĐ 5V SIRCS
H2-2 7P WHT :S-MICRO
TO Đ BOARĐ Đ-2

J2-5 2P WHT-L :S-MICRO TO CRT SHIELĐ
GNĐ GNĐ
C1755 470p B
C1756 470p B

J2
(SPEAKER TERMINAL)
J2-4 4P WHT-L :S-MICRO TO H1 BOARĐ H1-4
L IN
GNĐ
GNĐ
R IN
AUĐIO L
AUĐIO R
L1751
L1752
C1751 0.022 F
C1752 0.022 F
J2-1

Y-3 7P REĐ TO Đ BOARĐ Đ-3 :S-MICRO
14V
7V
GNĐ
V BLK
NR
INIT
50/60

Y-34 6P BLK :S-MICRO TO B BOARĐ B-34
GNĐ
Y OUT
C OUT
GNĐ
Y IN
C IN

IC1701 TA78009AP +9V REG
IC1702 TA78005AP +5V REG
Đ1701 1SS133
Q1703 ĐTC114ES SW
Q1701 ĐTC144ES SW
Q1702 ĐTC144ES SW
Q1705 JA101 Y AMP
Q1704 JC501 Y AMP
L1701 47µH
L1703 47µH
L1702 4.7µH
R1701 33 1W :RS
R1703 27k
R1704 4.7k
R1705 5.6k
R1706 6.8k
R1707 10k
R1708 10k
R1710 22k
R1711 56k
R1712 470
R1713 560
R1714 1k
R1717 1k
R1718 1k
R1723 680
C1701 22 50V
C1702 0.01 50V F
C1703 22 50V
C1704 0.01 50V F
C1705 22 50V
C1706 22 50V
C1707 22 50V
C1710 22p
C1711 68p
9V
7V
5V
Y
C
(NOISE REĐUC
ĐEMO
NR
50/6
V BL
NR
5V
C OU
GNĐ
C IN
GNĐ
Y OU
9V
Y IN
ĐNR1

J1-43 9P WHT-L :S-MICRO
9 Y IN
8 GNĐ
7 C IN
6 GNĐ
5 VIĐEO IN
4 GNĐ
3 L IN
2 GNĐ
1 R IN
TO H1 BOARĐ H1-43

J1-44 12P WHT-L :S-MICRO
12 12V
11 GNĐ
10 LEĐ 2
9 LEĐ 1
8 Y/C
7 F/R
6 GNĐ
5 R IN
4 L IN
3 GNĐ
2 R OUT
1 L OUT
TO Đ BOARĐ Đ-44

IC1403 HĐ14053BP COMPOSITE Y/C SW
IC1401 CXA1114P AV SW
IC1402 TEA2014A SCART VIĐEO OUT
J-1402 21P SCART RGB
Đ1422 RĐ7.5ESB3 PROT
Đ1421 RĐ7.5ESB3 PROT
Đ1425 RĐ7.5ESB3 PROT
Đ1423 RĐ7.5ESB3 PROT
Đ1424 RĐ7.5ESB3 PROT
Đ1419 RĐ7.5ESB3 PROT
Đ1407 RĐ10ESB3 PROT
REG Đ1408 RĐ9.1ESB3
Đ205 RĐ7.5ESB3 PROT
Q1402 2SC2712G VIĐEO OUT BUFF
Q1403 2SC2712G Y OUT BUFF
Q1404 2SA1162G C OUT BUFF
12V
AUĐIO R
AUĐIO L
VIĐEO
Y OUT BUFF
C OUT BUFF

J1-41 18P BLK :HINGE-S
1 MOĐE 1
2 MOĐE 2
3 GNĐ
4 SĐA
5 SCL
6 4 LEVEL
7 R OUT
8 G OUT
9 B OUT
10 BLK
11 GNĐ
12 C OUT
13 GNĐ
14 Y OUT
15 GNĐ
16 V OUT
17 GNĐ
18 V TV IN
BOARĐ Đ-41

• WAVEFORMS J1 BOARD
① 2 Vp-p (H)
② 2 Vp-p (H)

A-19 4P BLK :S-MICRO TO A1 BOARĐ A1-19
C4 4
C2MT 3
C1MT 2
M1/M2 1

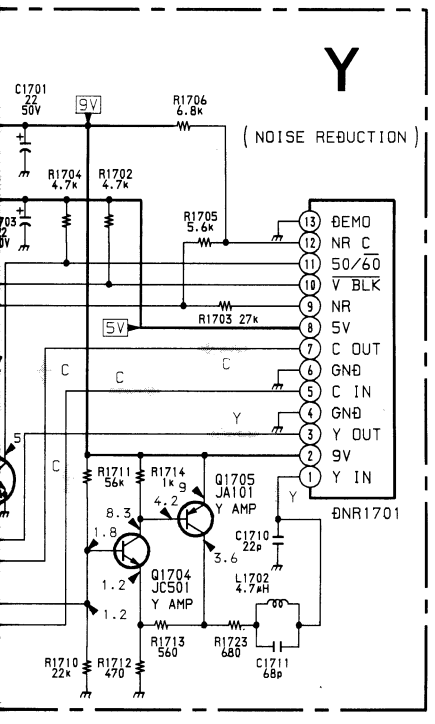
A-11 18P WHT :HINGE-S TO Đ BOARĐ Đ-11
C1MT 1
C2MT 2
C4 3
L OUT 4
GNĐ 5
R OUT 6
4LEVEL 7
NC 8
GNĐ 9
VIĐEO 10
GNĐ 11
AFT 12
33V 13
5V 14
SCL 15
SĐA 16
GNĐ 17
12V 18

A-15 1P WHT :LARGE
GNĐ 1
TO COATING EARTH ASSY

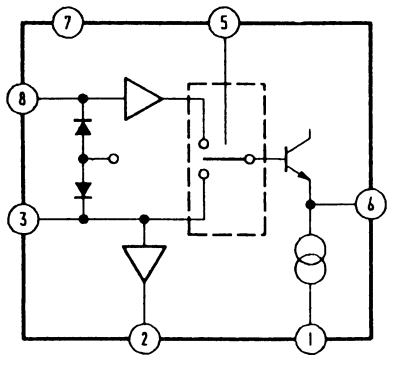
IC103 PCF8574 I/O EXPANĐE
A0 VĐĐ
A1 SĐA
A2 SCL
B/G INT
I Đ2MAC
ĐIK PRC
M B1
VSS L

L100 560µH
L101 3.3µH
L102 22µH
C100 22 50V
C101 47 50V
C102 470 16V
C104 47 50V
C106 22 50V
C108 0.1 50V :MPS
C109 470p
C177 0.001 B
R107 22k
R158 220
R159 220
JW96
JW97
33V
5V
12V
AUĐIO L
AUĐIO R
VIĐEO

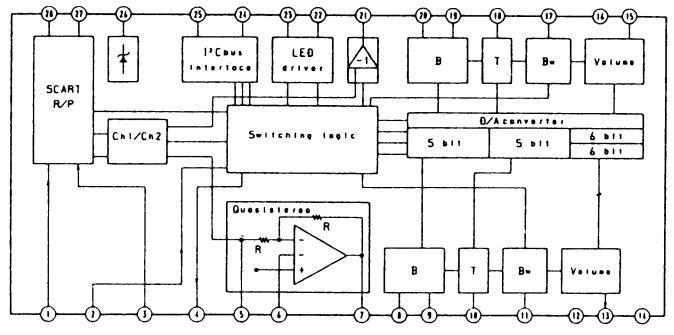
A
(TUNER, VIF, SIF)



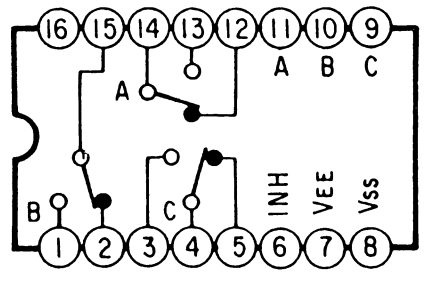
J1 BOARD IC1402 TEA2014A



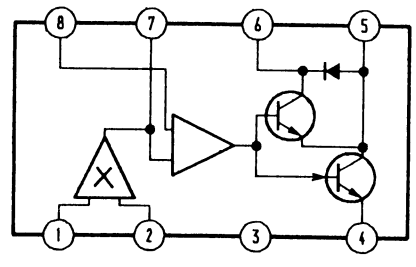
J1 BOARD IC201 TDA6200



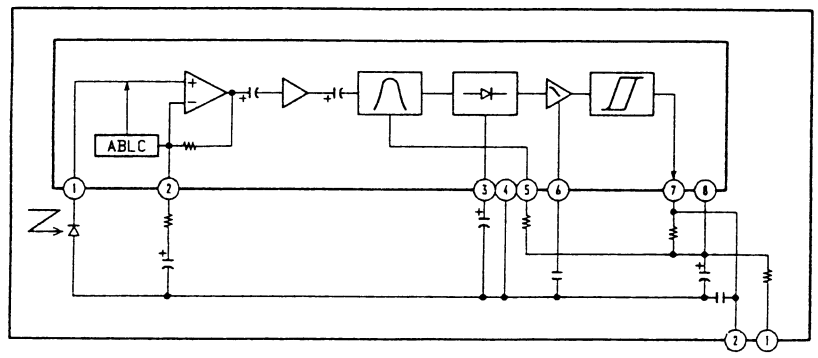
J1 BOARD IC1403 HD14053BP



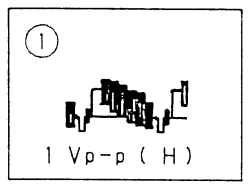
J1 BOARD IC1501 TEA2031

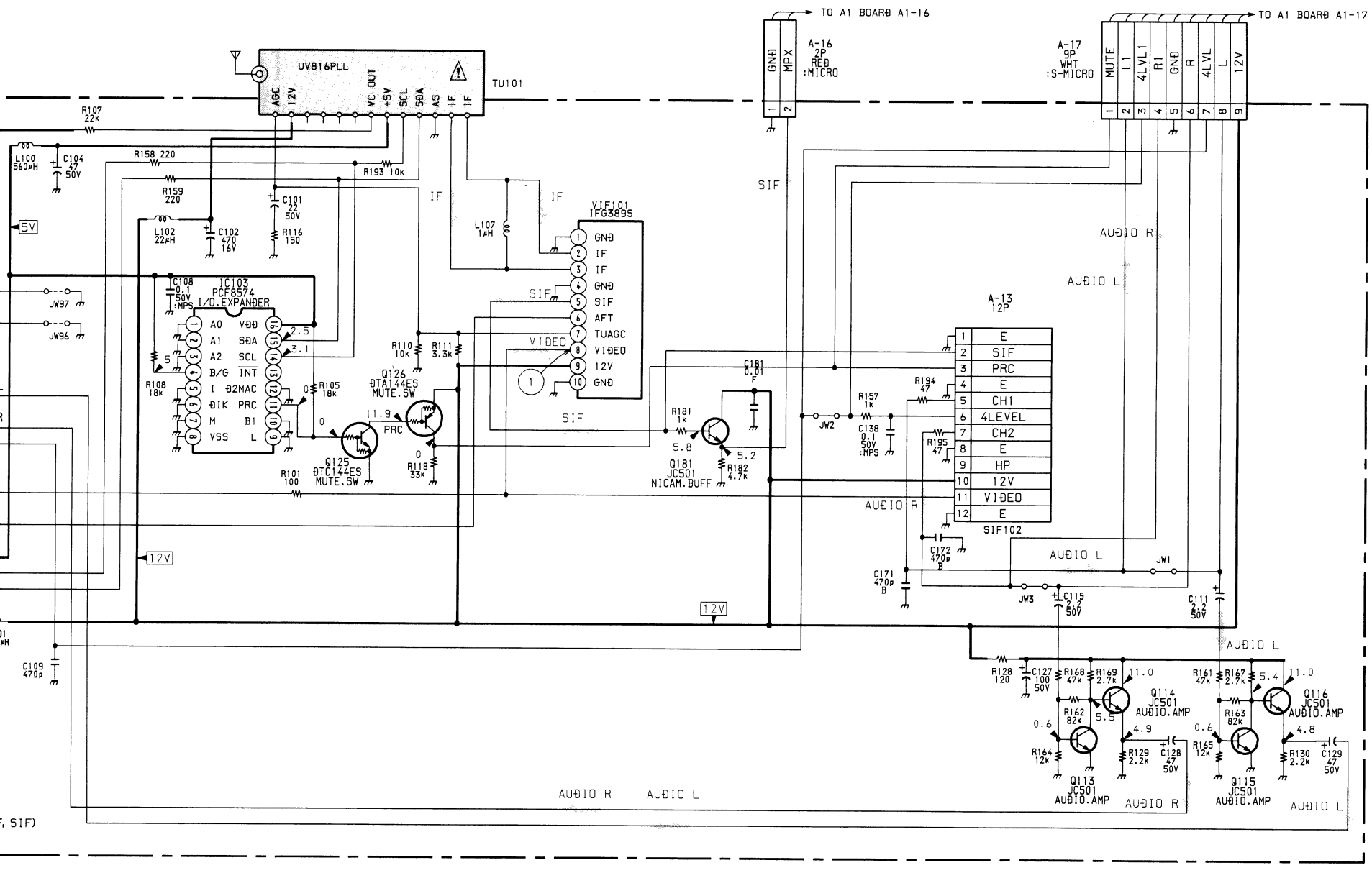


H2 BOARD IC1651 BX1387



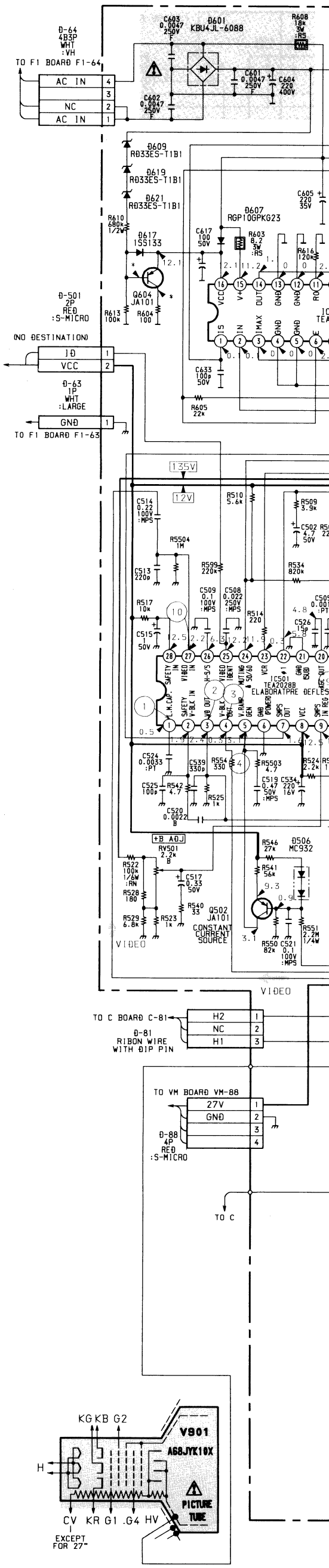
• WAVEFORMS A BOARD

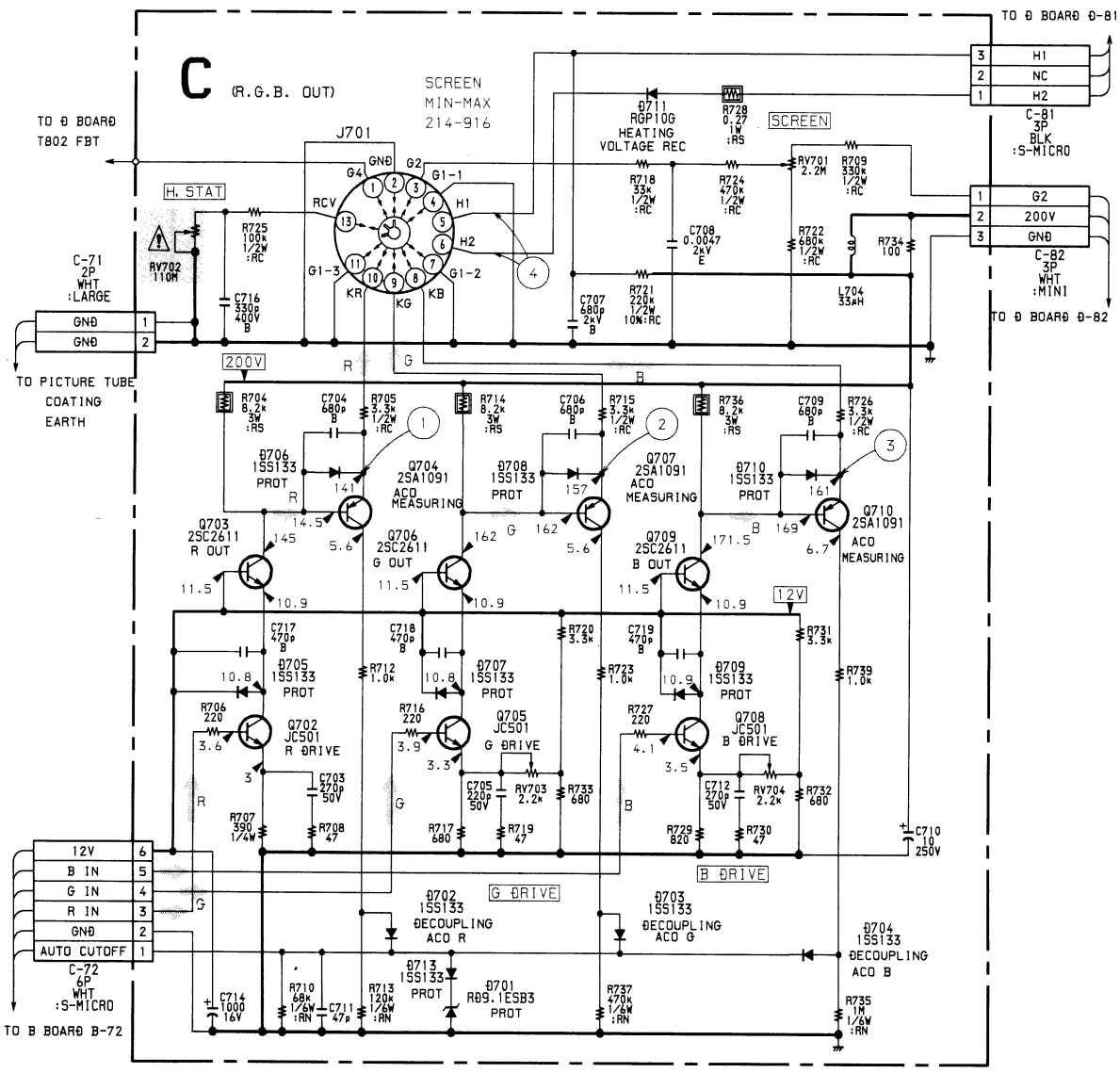




• WAVEFORMS D BOARD

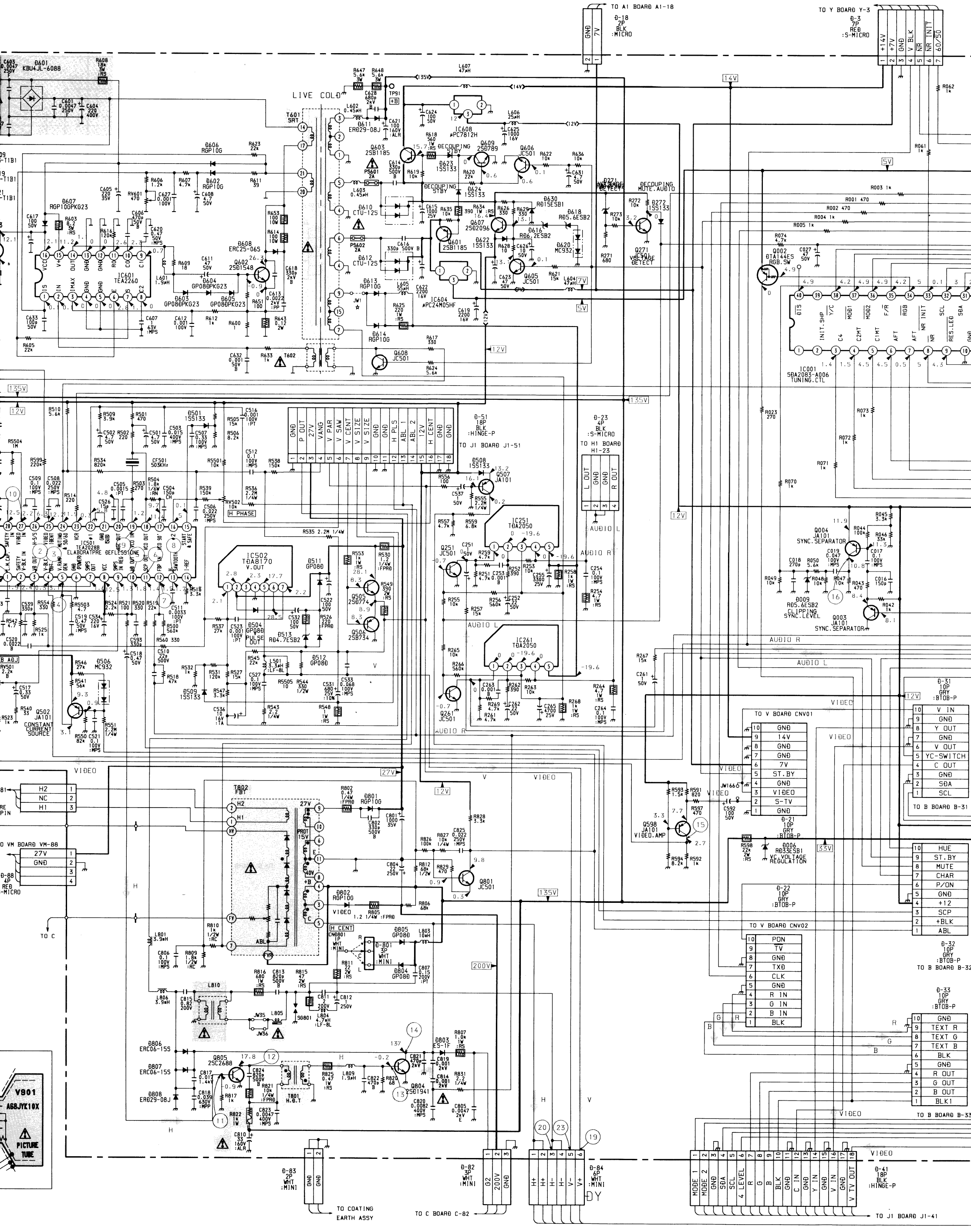
① 13 Vp-p (H)	② 2.8 Vp-p (H)	③ 4.5Vp-p (V)
④ 2.8 Vp-p (V)	⑤ 4 Vp-p (H)	⑥ 11 Vp-p (H)
⑦ 14 Vp-p (H)	⑧ 4 Vp-p (H)	⑨ 0.1Vp-p (503KHz)
⑩ 1.3Vp-p (H)	⑪ 3.2Vp-p (H)	⑫ 230 Vp-p (H)
⑬ 13 Vp-p (H)	⑭ 920Vp-p (H)	⑮ 1 Vp-p (H)
⑯ 10.5Vp-p (H)	⑰ 3.8Vp-p (V)	⑱ 6.3Vp-p (H)
⑲ 50Vp-p (V)	⑳ 160Vp-p (H)	㉑ 3.8Vp-p (V)
3.2Vp-p (12MHz)	7 Vp-p (V)	





• WAVEFORMS C BOARD

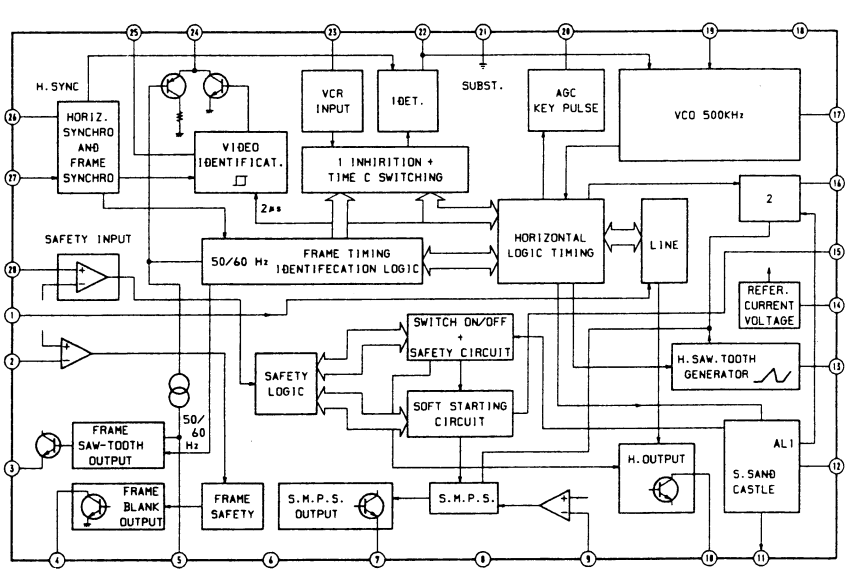
① 120Vp-p (H)	② 100 Vp-p (H)	③ 80 Vp-p (H)	④ 21Vp-p (H)


TO A1 BOARD A1-18
D-18
2P
BLK
:MICRO
GND
7V
TO Y BOARD Y-3
D-3
7P
RED
:S-MICRO
+14V
+7V
GND
V BLK
NR
NR INIT
60/50
LIVE COLD
D601 KBU4JL-6088
IC601 TEA2260
IC501 TEA2028B ELABORATPRE DEFLESSIONE
IC502 TDA8170 V.OUT
IC608 μPC7812H
IC604 μPC24M05HF
IC251 TDA2050
IC261 TDA2050
Q603 2SB1185
Q609 2SD789
Q606 JC501
Q607 2SD2096
Q601 2SB1185
Q602 2SB1548
Q605 JC501
Q608 JC501
Q501 JA101
Q502 JA101 CONSTANT CURRENT SOURCE
Q505 2SD774
Q506 2SB734
Q507 JA101
Q251 JC501
Q261 JC501
Q271 JC501 VOLTAGE DETECT
Q598 JA101 VIDEO.AMP
Q801 JC501
Q802 2SC2688
Q803 2SD1941
Q001 DTA144ES RGB.SW
Q002 JA101 SYNC.SEPARATOR
Q003 JA101 SYNC.SEPARATOR
Q004 JA101 SYNC.SEPARATOR
T601 SRT
T602 FBT
T801 H.O.T
D606 RGP10G
D602 RGP10G
D607 RGP10PKG23
D608 ERC25-06S
D603 GP08DPKG23
D604 GP08DPKG23
D605 GP08DPKG23
D611 ERD29-08J
D610 CTU-12S
D612 CTU-12S
D613 RGP10G
D614 RGP10G
D630 RD15ESB1
D618 RD5.6ESB2
D616 RD6.2ESB2
D620 MC932
D622 1SS133
D623 1SS133
D624 1SS133
D271 VOLTAGE DETECT
D501 1SS133
D509 1SS133
D511 GP08D
D504 GP08D PULSE OUT
D513 RD4.7ESB2
D512 GP08D
D506 MC932
D508 1SS133
D802 RGP10G
D801 RGP10G
D805 GP08D
D804 GP08D
D806 ERC06-15S
D807 ERC06-15S
D808 ERD29-08J
D803 ES-1F
D009 RD5.6ESB2 CLIPPING SYNC.LEVEL
D006 RD33ESB1 VC.VOLTAGE REGULATION
DECOUPING STBY
DECOUPING MUTE.AUDIO
AUDIO L
AUDIO R
VIDEO
H CENT
H PHASE
CF501 503KHz
RV501 2.2k B ADJ
RV601 470
RV502 10k
TP91 +B
JW1
JW35
JW36
SG801
PS601 2A
PS602 2A
L801 3.9mH
L806 3.9mH
L810
D-51 18P BLK :HINGE-P
TO J1 BOARD J1-51
D-23 4P BLK :S-MICRO
TO H1 BOARD H1-23
TO V BOARD CNV01
TO V BOARD CNV02
D-21 10P GRY :BTOB-P
D-22 10P GRY :BTOB-P
D-31 10P GRY :BTOB-P
D-32 10P GRY :BTOB-P
D-33 10P GRY :BTOB-P
TO B BOARD B-31
TO B BOARD B-32
TO B BOARD B-33
D-83 2P WHT :MINI
D-82 3P WHT :MINI
D-84 6P WHT :MINI
D-41 18P BLK :HINGE-P
TO COATING EARTH ASSY
TO C BOARD C-82
TO J1 BOARD J1-41
D-88 4P RED :MICRO
TO VM BOARD VM-88
TO C
V901 A68JYK10X PICTURE TUBE
IC001 5DA2083-A006 TUNING.CTL
135V
14V
12V
7V
5V
27V
200V
33V

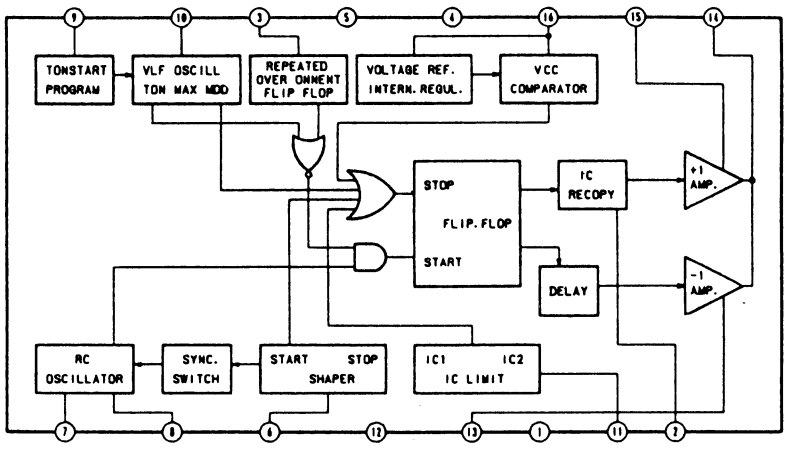
D

(TUNING CONTROL.
POWER CONTROL.
AUDIO OUT.
H/V OUT)

D BOARD IC501 TEA2028B

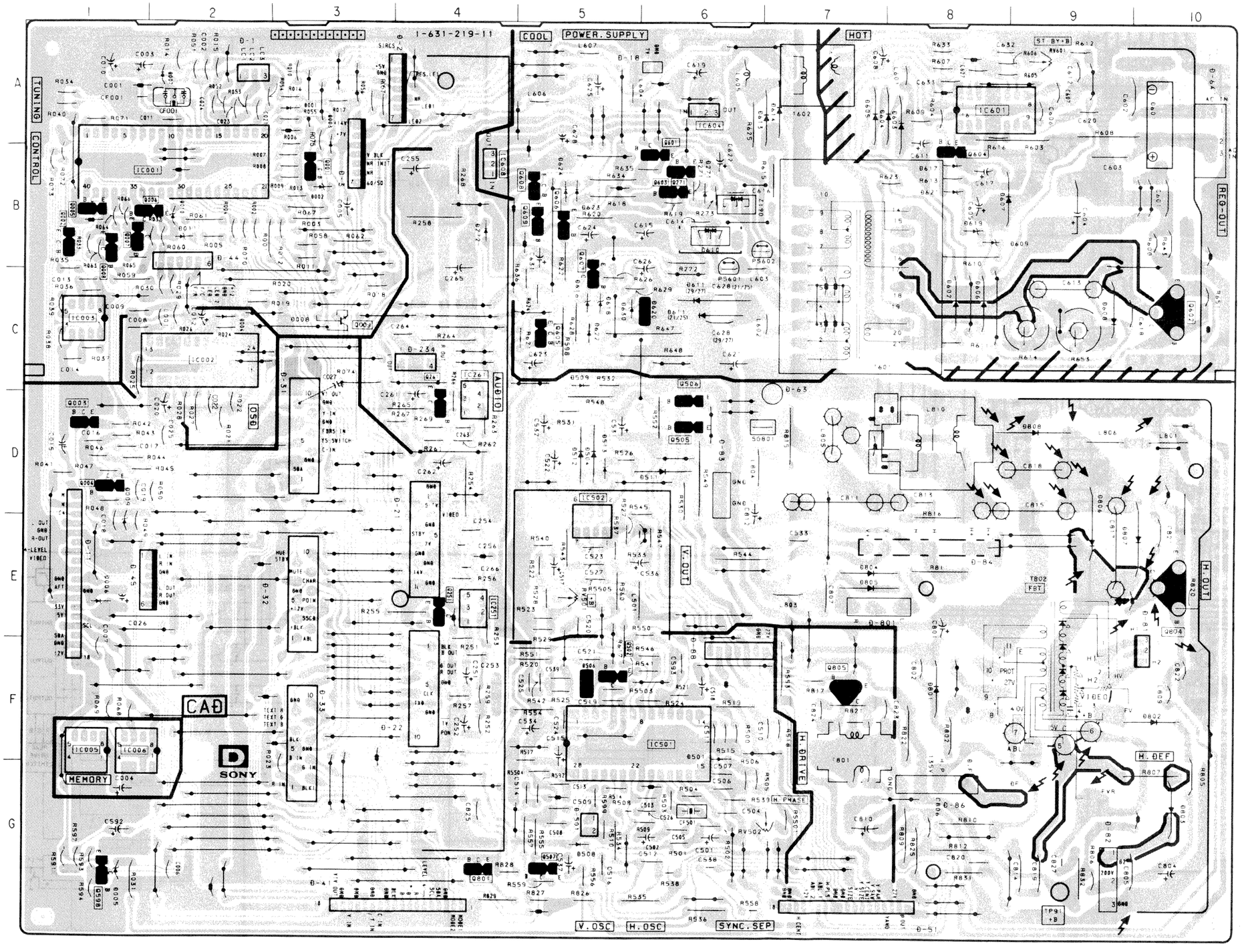


D BOARD IC601 TEA2260



[TUNING CONTROL, POWER CONTROL, AUDIO OUT, H/V OUT] D D

— D Board —



Đ BOARĐ

IC

IC001	B-1
IC002	C-2
IC003	C-1
IC005	F-1
IC251	E-4
IC261	C-4
IC501	F-6
IC502	Đ-6
IC601	A-8
IC604	A-6
IC608	B-4

TRANSISTOR

Q001	B-3
Q002	B-1
Q003	Đ-1
Q004	Đ-1
Q005	B-1
Q006	B-1
Q007	B-1
Q008Q	B-1
Q009	C-3
Q251	E-4
Q261	C-4
Q271	B-6
Q502	F-5
Q505	Đ-6
Q506	C-6
Q507	G-5
Q598	G-1
Q601	A-6
Q602	C-10
Q603	B-6
Q604	B-7
Q605	C-5
Q606	B-5
Q607	B-5
Q608	B-5
Q609	B-5
Q801	G-4
Q804	E-10
Q805	F-7

ĐIOĐE

Đ001	A-3
Đ002	B-3
Đ003	A-3
Đ004	C-2
Đ005	G-1
Đ006	E-1
Đ007	A-2
Đ009	Đ-1
Đ010	B-2
Đ011	B-2
Đ271	B-6
Đ272	B-4
Đ501	F-6
Đ504	Đ-5
Đ506	F-5
Đ508	G-5
Đ508	C-5
Đ509	Đ-9
Đ511	Đ-5
Đ512	Đ-5
Đ513	A-10
Đ601	C-8
Đ602	A-8
Đ603	A-7
Đ604	A-7
Đ605	C-8
Đ606	A-8
Đ606	C-8
Đ607	B-8
Đ608	C-9
Đ609	B-8
Đ610	B-6
Đ611	C-6
Đ612	B-6
Đ613	A-7
Đ614	A-7
Đ616	C-5
Đ617	B-8
Đ618	C-5
Đ619	B-8
Đ620	C-6
Đ621	B-8
Đ622	C-5
Đ623	B-5
Đ624	B-5
Đ630	C-5
Đ801	F-8
Đ802	F-10
Đ803	G-10
Đ804	E-7
Đ805	E-7
Đ806	Đ-9
Đ807	E-10
Đ808	Đ-9

VARIABLE RESISTOR

RV501	E-5
RV502	G-6
RV601	A-9

TEST POINT

TP91	G-9

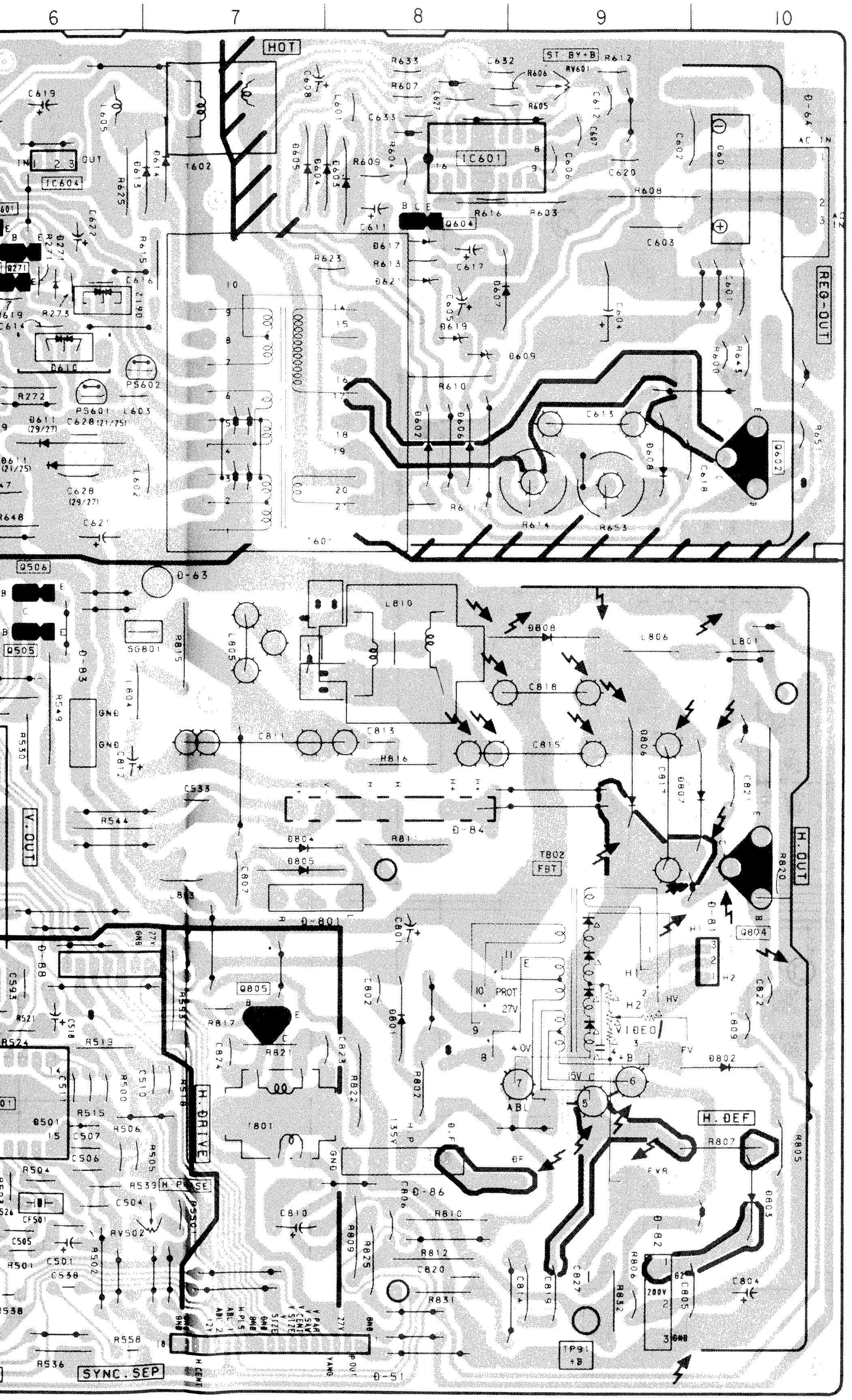
KV-D2921D RM-689

G CONTROL, CONTROL, OUT, T **D**

D

KV-D2921D RM-689

[R. B. B OUT] **C**



Đ BOARD

IC	
IC001	B-1
IC002	C-2
IC003	C-1
IC005	F-1
IC251	E-4
IC261	C-4
IC501	F-6
IC502	Đ-6
IC601	A-8
IC604	A-6
IC608	B-4

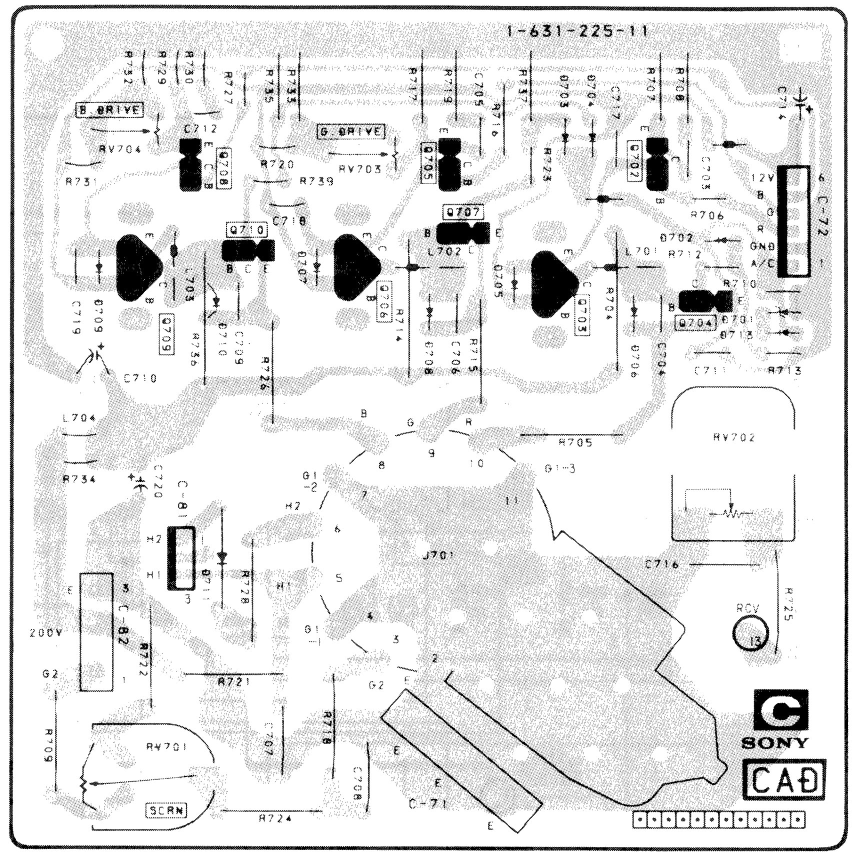
TRANSISTOR	
Q001	B-3
Q002	B-1
Q003	Đ-1
Q004	Đ-1
Q005	B-1
Q006	B-1
Q007	B-1
Q008Q	B-1
Q009	C-3
Q251	E-4
Q261	C-4
Q271	B-6
Q502	F-5
Q505	Đ-6
Q506	C-6
Q507	G-5
Q598	G-1
Q601	A-6
Q602	C-10
Q603	B-6
Q604	B-7
Q605	C-5
Q606	B-5
Q607	B-5
Q608	B-5
Q609	B-5
Q801	G-4
Q804	E-10
Q805	F-7

ĐIOĐE	
Đ001	A-3
Đ002	B-3
Đ003	A-3
Đ004	C-2
Đ005	G-1
Đ006	E-1
Đ007	A-2
Đ009	Đ-1
Đ010	B-2
Đ011	B-2
Đ271	B-6
Đ272	B-4
Đ501	F-6
Đ504	Đ-5
Đ506	F-5
Đ508	G-5
Đ508	C-5
Đ509	Đ-9
Đ511	Đ-5
Đ512	Đ-5
Đ513	A-10
Đ601	C-8
Đ602	A-8
Đ603	A-7
Đ604	A-7
Đ605	C-8
Đ606	A-8
Đ606	C-8
Đ607	B-8
Đ608	C-9
Đ609	B-8
Đ610	B-6
Đ611	C-6
Đ612	B-6
Đ613	A-7
Đ614	A-7
Đ616	C-5
Đ617	B-8
Đ618	C-5
Đ619	B-8
Đ620	C-6
Đ621	B-8
Đ622	C-5
Đ623	B-5
Đ624	B-5
Đ630	C-5
Đ801	F-8
Đ802	F-10
Đ803	G-10
Đ804	E-7
Đ805	E-7
Đ806	Đ-9
Đ807	E-10
Đ808	Đ-9

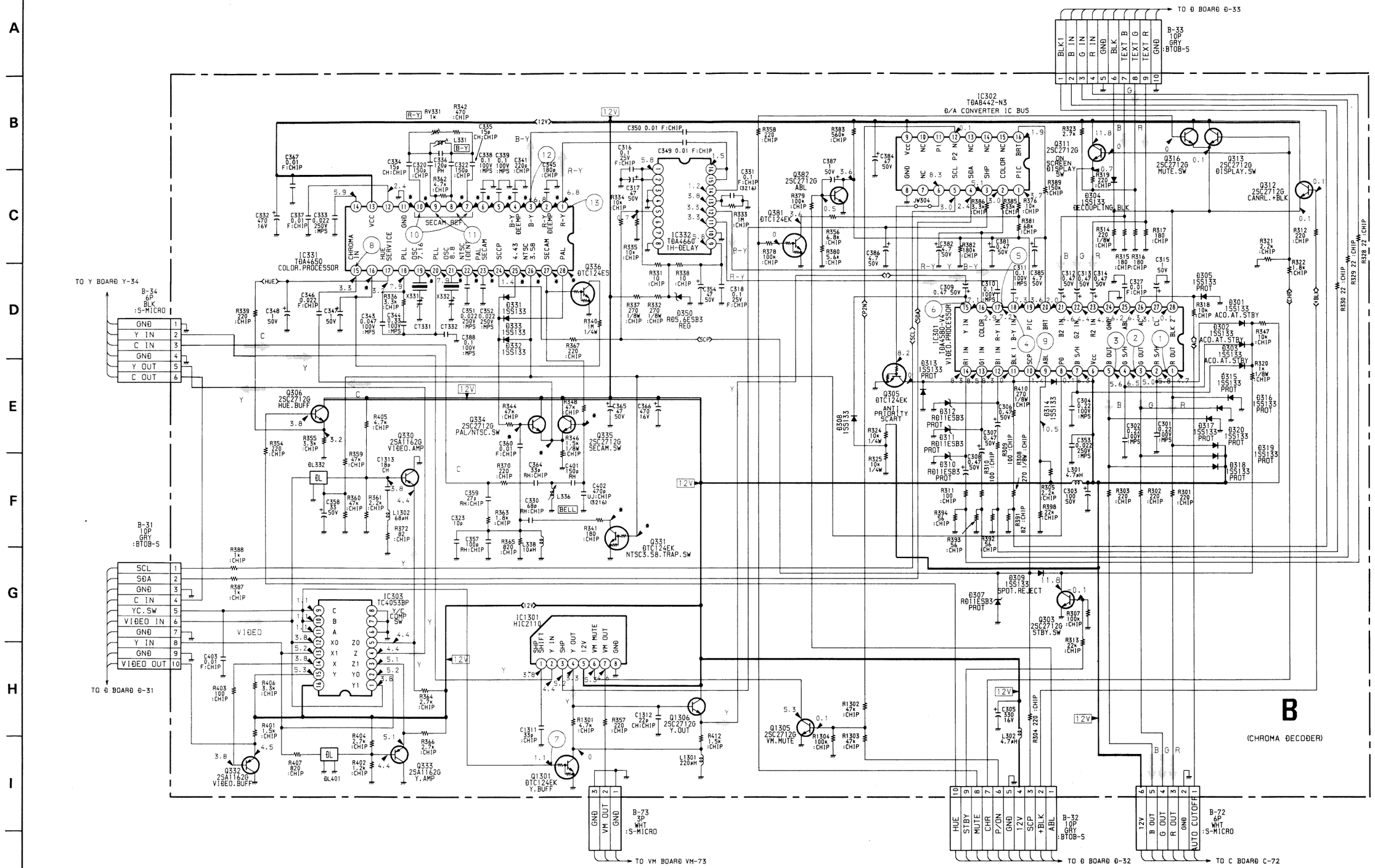
VARIABLE RESISTOR	
RV501	E-5
RV502	G-6
RV601	A-9

TEST POINT	
TP91	G-9

— C Board —



KV-D2921D
RM-689



16 | 17 | 18 | 19 | 20 | 21 | 22 | 23

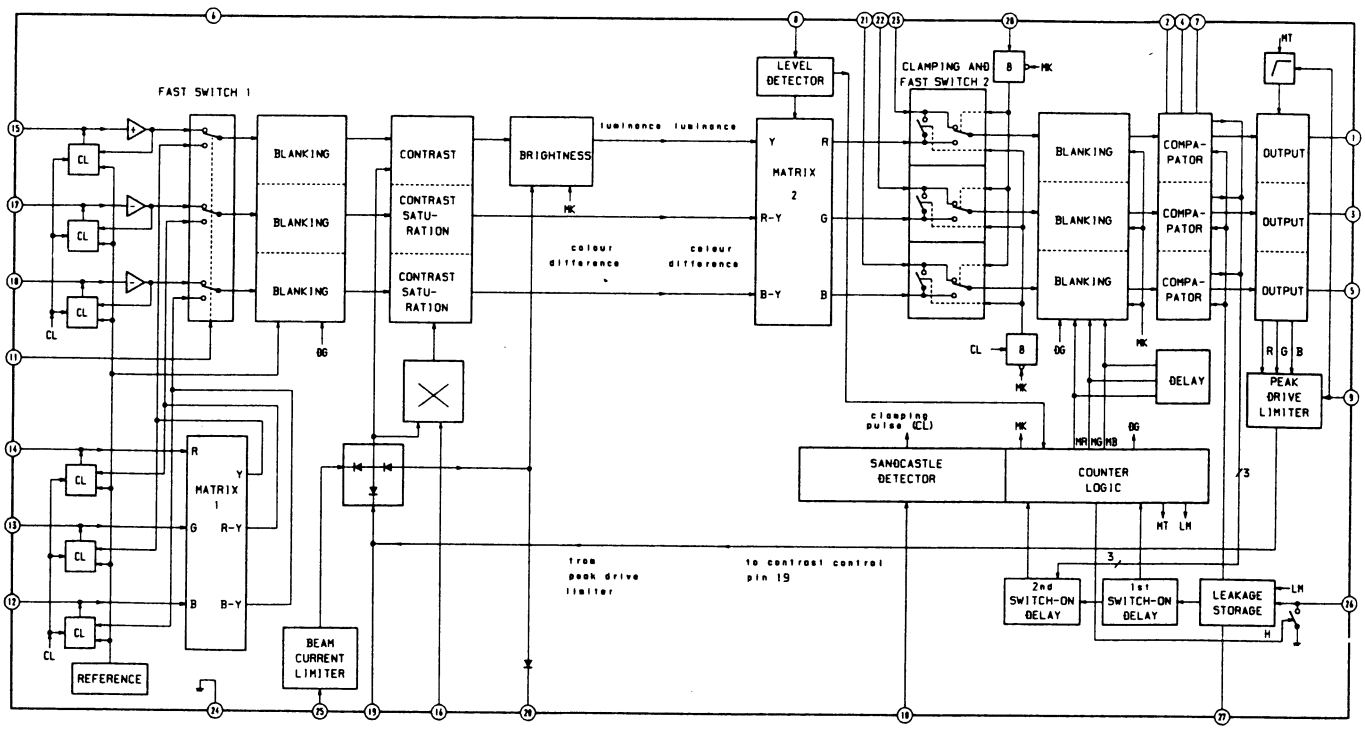
As to the voltage value shown by the mark ※ on the Schematic Diagram, see the another list.

		PAL	SECAM	NTSC3.58	NTSC4.43
IC331	②	7.5	7.3	7.5	7.4
	④	7.5	7.2	7.5	7.4
	⑤	10	10	10	9.8
	⑥	10	10	10	9.9
	⑦	4.9	3.4	4.9	4.9
	⑧	3.7	3	3.8	3.8
	⑨	3.7	3	3.8	3.8
	⑩	5	3.4	4.9	4.9
Q331	(B)	0.1	0.1	0.1	5.8
	(C)	0.5	0.5	0.5	0
Q334	(B)	4.9	0.1	4.9	4.9
	(E)	4.3	4.6	4.3	4.3
Q335	(B)	0.1	5.3	0.1	0.1
	(E)	4.3	4.6	4.3	4.3

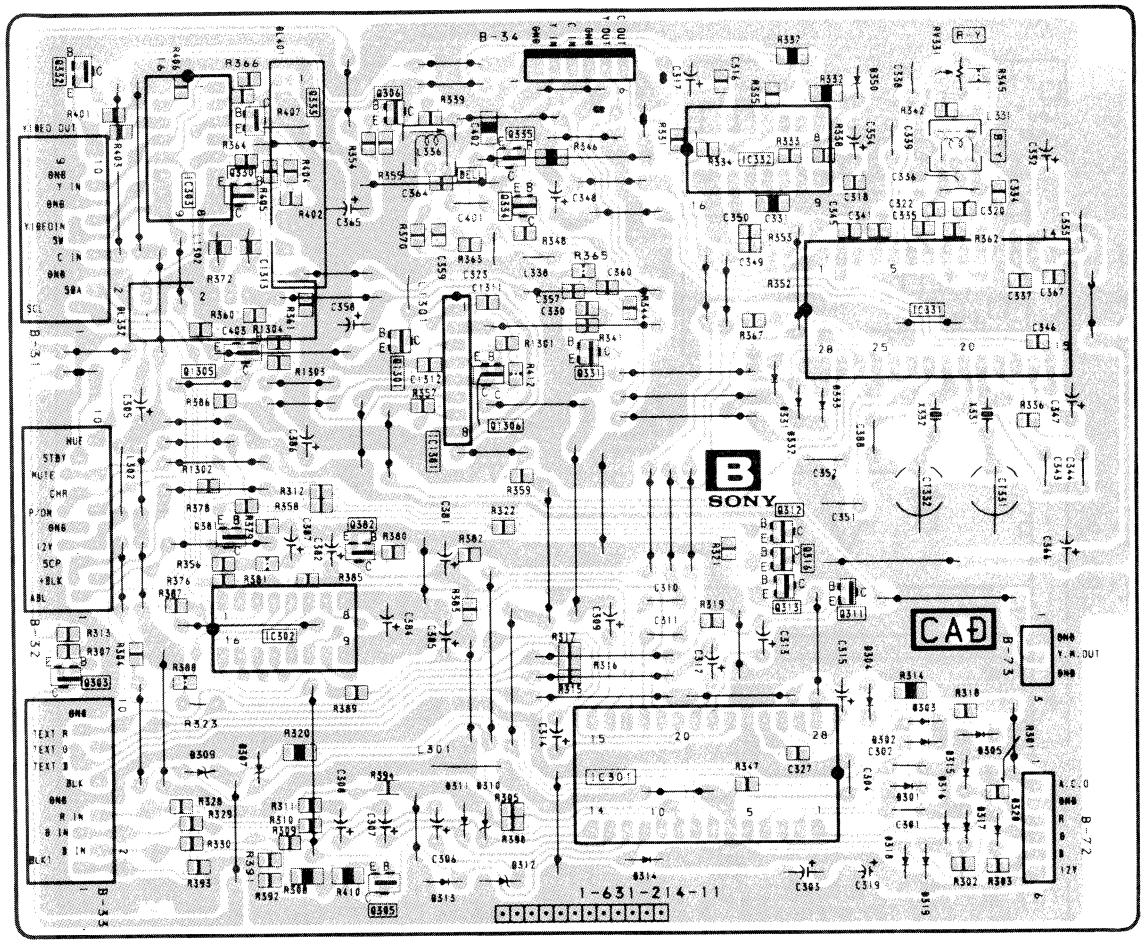
• WAVEFORMS B BOARD

① 5.5Vp-p (H)	② 5.5Vp-p (H)	③ 5.5Vp-p (H)
④ 1.3Vp-p (H)	⑤ 1 Vp-p (H)	⑥ 0.4Vp-p (H)
⑦ 0.4Vp-p (H)	⑧ PAL NTSC 3.58 4.43 0.16Vp-p (H)	⑧ SECAM 0.1Vp-p (H)
⑨ 10 Vp-p (H)	⑩ SECAM 1 Vp-p (H)	⑪ SECAM 0.13Vp-p (H)
⑫ 1 Vp-p (H)	⑬ 1 Vp-p (H)	

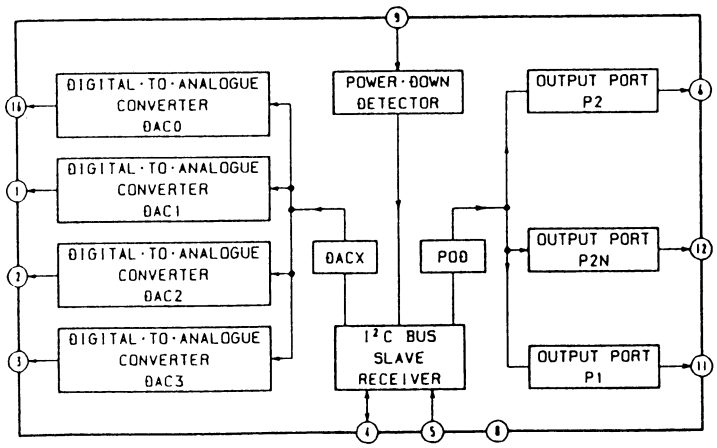
B BOARD IC301 TDA4580



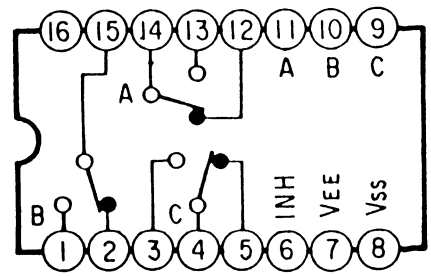
— B Board —



B BOARD IC302 TDA8442-N3

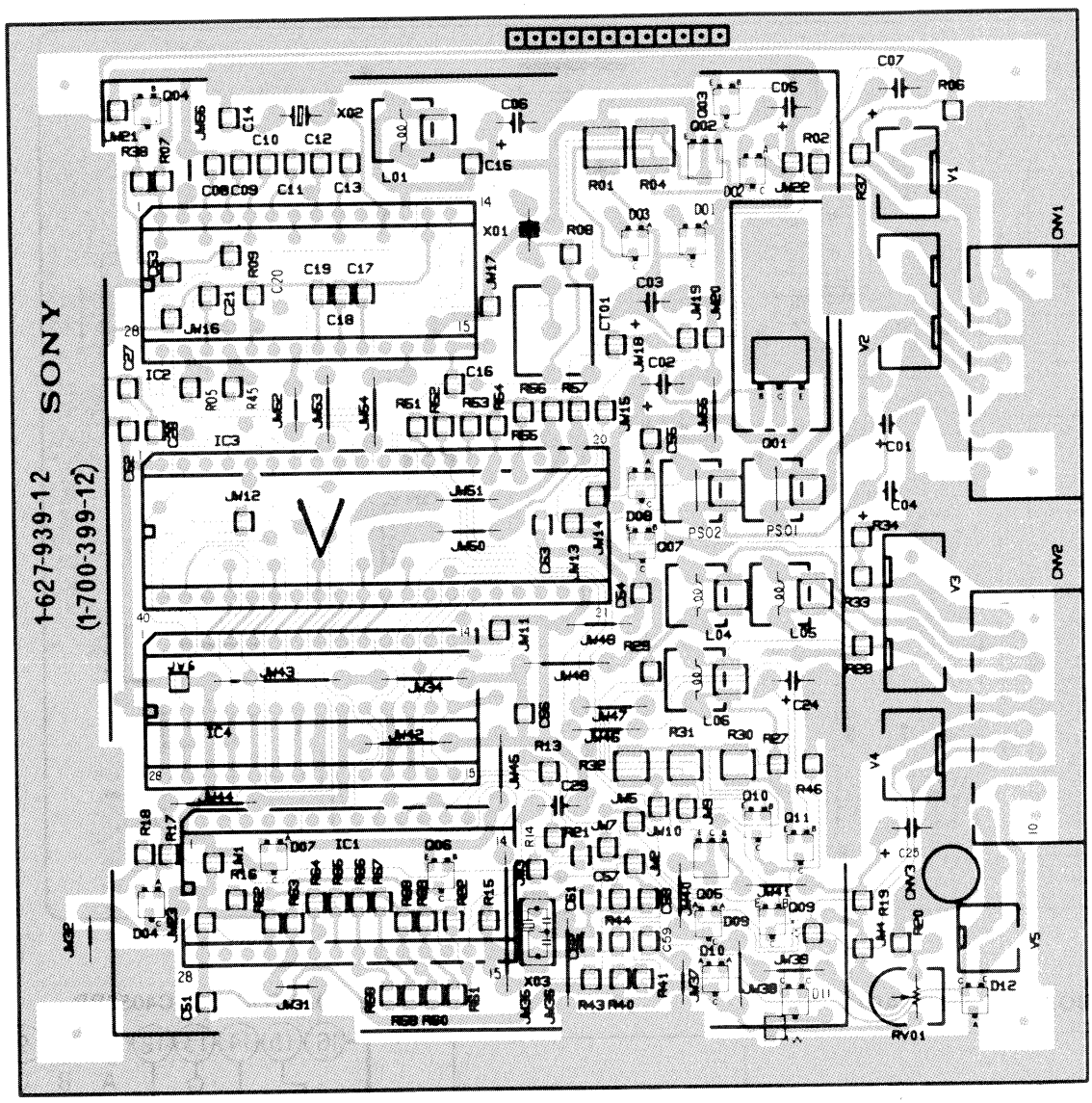


B BOARD IC303 TC4053BP

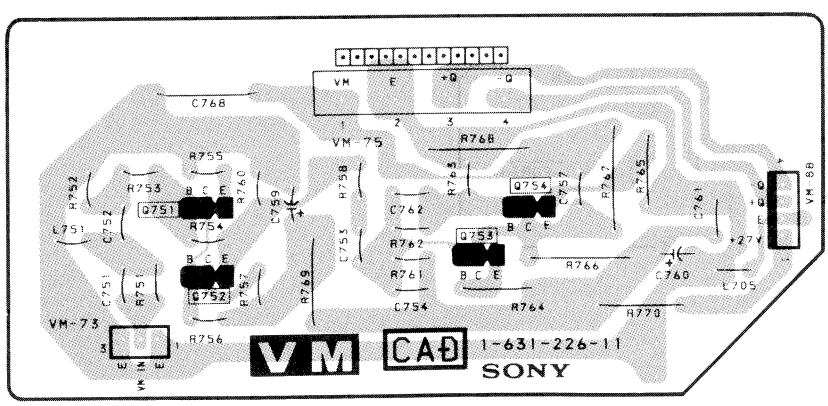


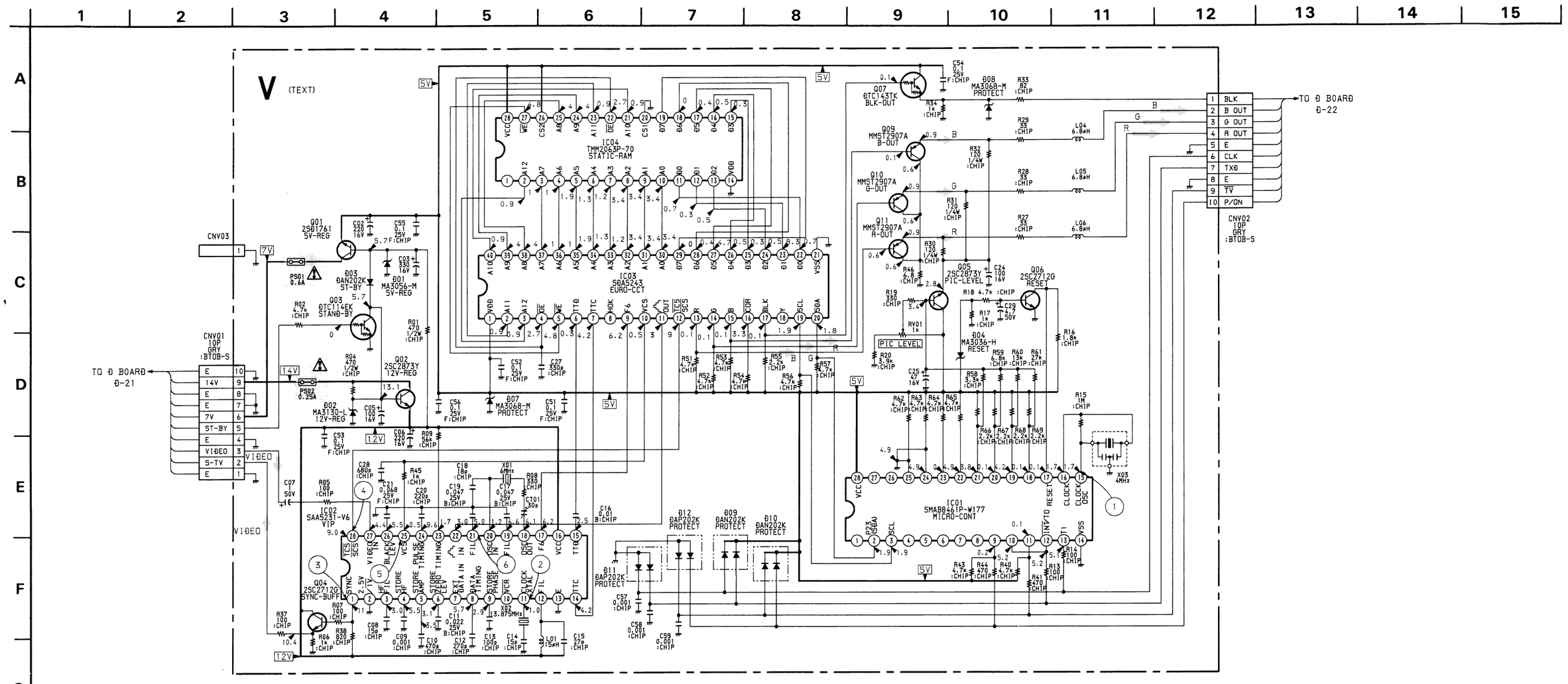
V [TEXT] **VM** [VM AMP]

— V Board —



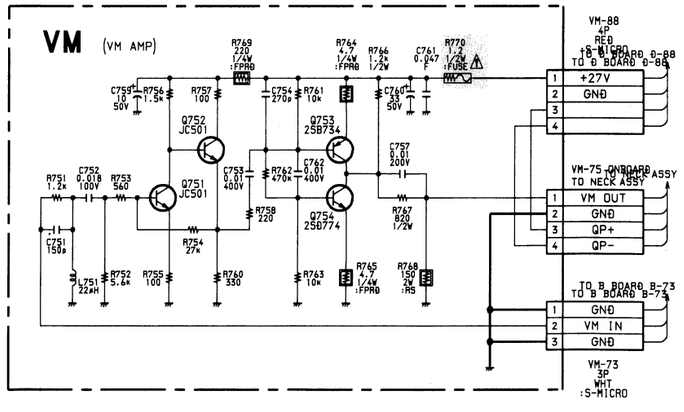
— VM Board —





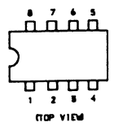
• **WAVEFORMS V BOARD**

① 3.5Vp-p (4MHz)	② 0.56Vp-p (0.75MH)	③ 1 Vp-p (H)
④ 1 Vp-p (H)	⑤ 2.9Vp-p (H)	⑥ 0.4Vp-p (6MHz)

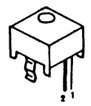


5-4. SEMICONDUCTORS

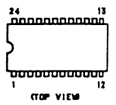
RC4558P
SDA2546
TEA2014A
TEA2031A



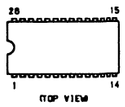
BX1387



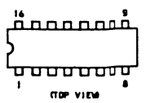
CXD1050A-09P



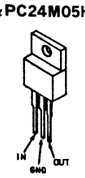
CXA1114P
TDA4580-V4
TDA4650
TDA6200
TEA2028B
SAA5231-V6
SMAB8461P-W177
TMM2063P-70



PCF8574P
TC4053BP
TDA4660
TDA8442-N3
TEA2260

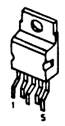


M5F7805
M5F7809
RC7812FA
μPC24M05HF

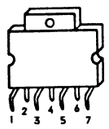


SDA2083-A006
2DA5243

TDA2050



TDA8170



DTA144ES
DTC114ES
DTC124ES
DTC144ES

DTC114EK
DTC124EK
DTC143TK
2SA1162G
2SB1295-UL6
2SC2712G

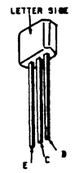
2SA1091-O
2SA733-K
2SD789-34

2SD1913SA-Q
2SB1094-L

2SB734-34
2SD774-34

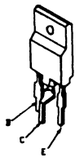
2SC2611
2SC2688-LK

2SC2785-HFE

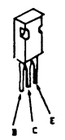


2SD1623-R

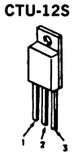
2SD1548-LB
2SD1941-06



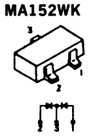
2SD2096-EF



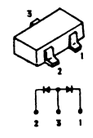
CTU-12S



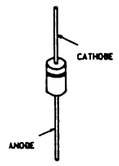
MA152WK



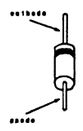
DAP-202K



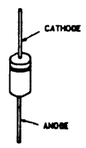
ERC06-15S
RU-3AM



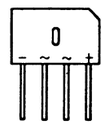
ERD29-08J



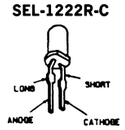
ES1F



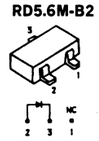
KBU4JL-6088



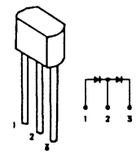
LD-201VR
SEL-1222R-C



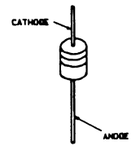
RD3.6M-B2
RD6.8M-B2
RD13M-B1
RD5.6M-B2



MC932



RD10ES-B3
RD11ES-B3
RD13ES-B2
RD15ES-B1
RD33ES-B1
RD36ES-B4
RD4.7ES-B2
RD5.6ES-B2
RD5.6ES-B3
RD6.2ES-B2
RD6.8ES-B3
RD7.5ES-B3
RD9.1ES-B3
1SS119
1SS133



U05G

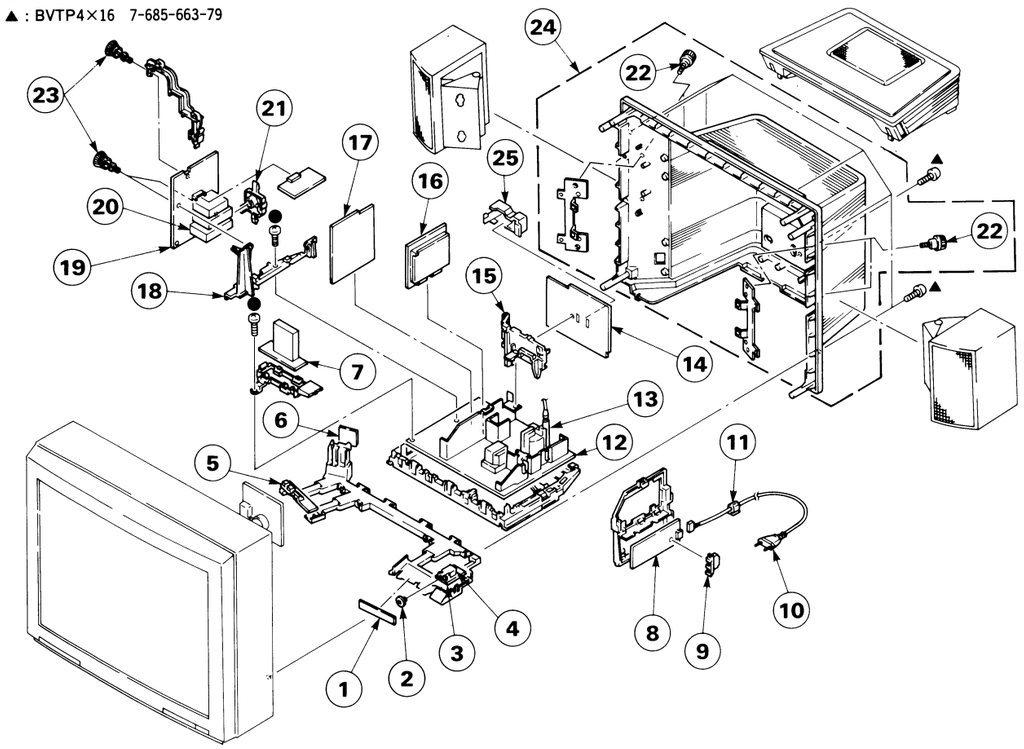
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CHASSIS

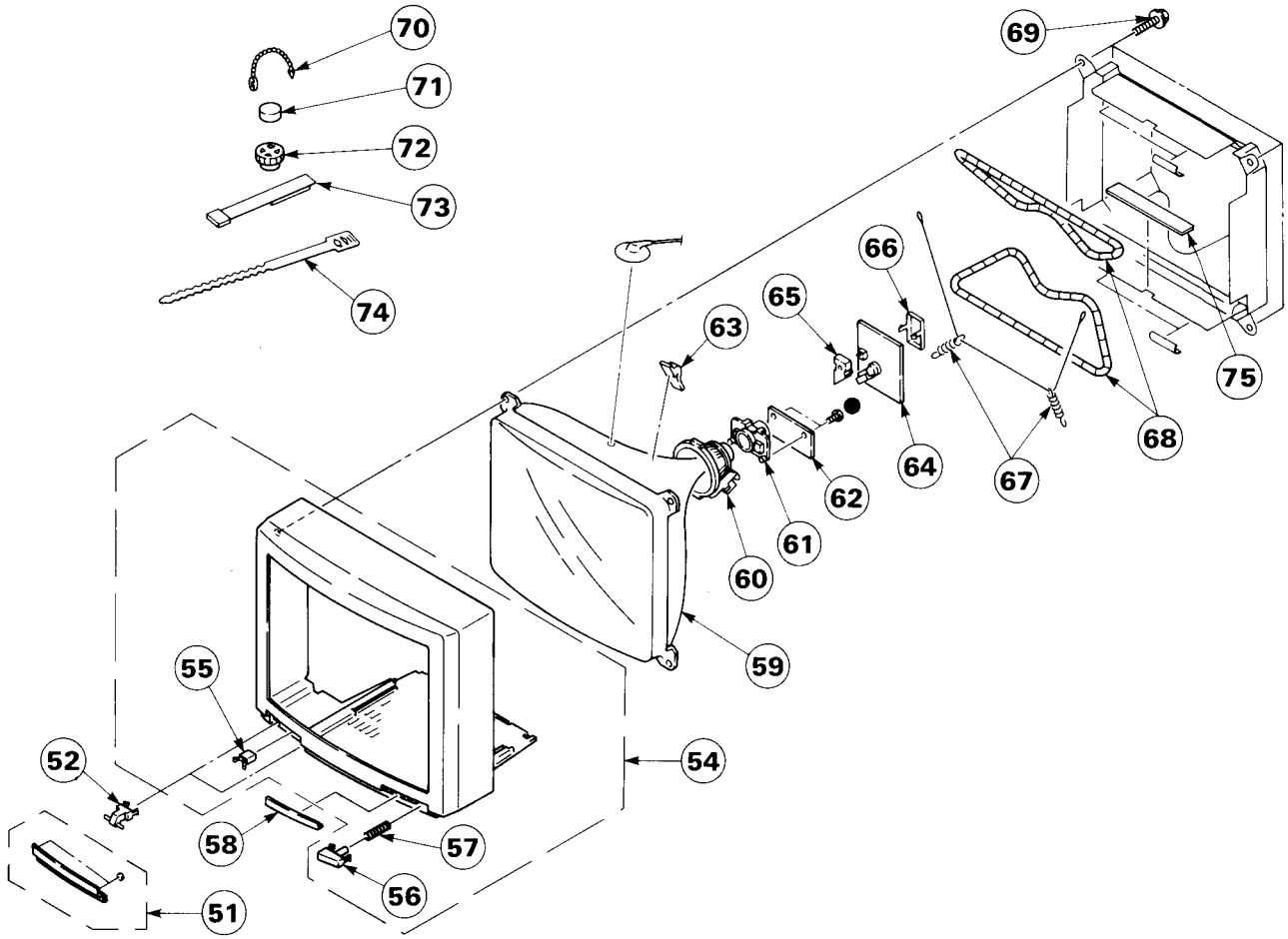
● : BVTP3×12 7-685-648-79
▲ : BVTP4×16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-631-221-11	H2 BOARD	
2	4-386-611-01	COVER, SWITCH	
3	*1-631-223-11	F2 BOARD	
4	⚠1-571-433-11	SWITCH, PUSH (AC POWER)	
5	*1-631-220-11	H1 BOARD	
6	*1-631-222-11	J2 BOARD	
7	*1-631-217-12	Y BOARD	
8	*1-631-216-12	F1 BOARD	
9	*4-386-620-02	COVER, POWER	
10	⚠1-575-487-11	CORD,POWER (WITH NOISE FILTER)	
11	⚠4-389-201-02	HOLDER, AC CORD	
12	*A-1642-001-A	D BOARD, COMPLETE	
13	⚠1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)	
14	*A-1651-001-A	J1 BOARD, COMPLETE	
15	*4-386-624-11	BRACKET, J	
16	*A-1347-031-A	V BOARD, COMPLETE	
17	*A-1621-001-A	B BOARD, COMPLETE	
18	*4-386-629-12	BRACKET, A	
19	*A-1632-001-A	A BOARD, COMPLETE	
20	⚠1-465-301-11	TUNER, ET (UV-816(PLL))	
21	*4-386-617-01	HOLDER, TERMINAL	
22	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
23	4-386-618-01	RIVET, T TYPE	
24	X-4200-009-1	COVER ASSY, REAR	22
25	4-200-014-01	BRACKET, TERMINAL	

6-2. PICTURE TUBE

● : BVTP3×12 7-685-648-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4200-001-2	LID ASSY, CONTROL	
52	3-703-035-11	SHAFT, LID	
54	X-4200-008-7	CABINET ASSY (WITH BEZEL ASSY)	55-57
55	4-386-710-01	CATCHER, PUSH	
56	4-200-013-01	BUTTON, POWER	
57	4-329-112-21	SPRING	
58	4-200-017-12	WINDOW, ORNAMENTAL	
59	⚠.8-733-821-05	PICTURE TUBE (A68JYK10X)	
60	⚠.1-451-313-22	DEFLECTION YOKE (Y29FXA)	
61	⚠.1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	
62	*1-631-226-11	VM BOARD	
63	3-703-961-01	SPACER, DY	
64	*A-1638-001-A	C BOARD, COMPLETE	
65	*4-379-167-01	COVER (MAIN), CV	
66	*4-379-160-01	COVER (REAR LID), CV	
67	4-369-318-00	SPRING, TENSION	
68	⚠.1-426-398-11	COIL, DEMAGNETIZATION	
69	4-373-263-01	SCREW (M), PT	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-032-00	MAGNET, DISK; 10MM ϕ	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74	3-701-007-00	BAND, BINDING	
75	4-389-291-01	CUSHION	

V

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1347-031-A	V BOARD, COMPLETE			
		**********			
	*4-380-698-01	CASE (MAIN), SHIELD, A1			
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1			
	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2			
		<CAPACITOR>			
C02	1-124-120-11	ELECT	220MF	20% 16V	
C03	1-124-119-00	ELECT	330MF	20% 16V	
C05	1-126-101-11	ELECT	100MF	20% 16V	
C06	1-124-120-11	ELECT	220MF	20% 16V	
C07	1-124-791-11	ELECT	1MF	20% 50V	
C08	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C10	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C11	1-163-037-11	CERAMIC CHIP	0.022MF	10% 25V	
C12	1-163-127-00	CERAMIC CHIP	270PF	5% 50V	
C13	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C14	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C15	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C17	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C18	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C19	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C20	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C21	1-163-833-00	CERAMIC CHIP	0.068MF	25V	
C24	1-126-101-11	ELECT	100MF	20% 16V	
C25	1-124-477-11	ELECT	47MF	20% 16V	
C27	1-163-129-00	CERAMIC CHIP	330PF	5% 50V	
C28	1-163-137-00	CERAMIC CHIP	680PF	5% 50V	
C29	1-124-927-11	ELECT	4.7MF	20% 50V	
C51	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C52	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C53	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C54	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C55	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C56	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C57	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C58	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C59	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
		<CONNECTOR>			
CNV01	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV02	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
		<TRIMMER>			
CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)			
		<DIODE>			
D01	8-719-105-91	DIODE RD5.6M-B2			
D02	8-719-106-79	DIODE RD13M-B1			
D03	8-719-400-18	DIODE MA152WK			
D04	8-719-105-52	DIODE RD3.6M-B2			
D07	8-719-106-17	DIODE RD6.8M-B2			
D08	8-719-106-17	DIODE RD6.8M-B2			
D09	8-719-400-18	DIODE MA152WK			
D10	8-719-400-18	DIODE MA152WK			
D11	8-719-914-44	DIODE DAP202K			
D12	8-719-914-44	DIODE DAP202K			
		<IC>			
IC1	8-759-986-92	IC MAR-8461P-W177			
IC2	8-759-972-96	IC SAA5231-V6			
IC3	8-759-032-98	IC SDA5243			
IC4	8-759-230-68	IC TMM2063P-70			
		<COIL>			
L01	1-408-411-00	INDUCTOR	15UH		
L04	1-408-407-00	INDUCTOR	6.8UH		
L05	1-408-407-00	INDUCTOR	6.8UH		
L06	1-408-407-00	INDUCTOR	6.8UH		
		<IC LINK>			
PS01	⚠1-532-679-91	LINK, IC (ICP-N15) 0.6A			
PS02	⚠1-532-727-91	LINK, IC 0.25A			
		<TRANSISTOR>			
Q3	8-729-900-53	TRANSISTOR DTC114EK			
Q01	8-729-107-26	TRANSISTOR 2SD1585-K			
Q02	8-729-807-50	TRANSISTOR 2SD1623-R			
Q04	8-729-271-22	TRANSISTOR 2SC2712-G			
Q05	8-729-807-50	TRANSISTOR 2SD1623-R			
Q06	8-729-271-22	TRANSISTOR 2SC2712-G			
Q07	8-729-900-98	TRANSISTOR DTC143TK			
Q09	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q10	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q11	8-729-807-87	TRANSISTOR 2SB1295-UL6			
		<RESISTOR>			
JW1	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW2	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW3	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW4	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW5	1-216-295-00	METAL GLAZE	0	5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
JW6	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW7	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW8	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW9	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW10	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW12	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW13	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW14	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW15	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW16	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW18	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW19	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW20	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW21	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW22	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW24	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW25	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R01	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R02	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R04	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R05	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R06	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R07	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R08	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R09	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R15	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R16	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R18	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R19	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R20	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R27	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R28	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R29	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R30	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R31	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R32	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R33	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R34	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R43	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R44	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R46	1-216-311-00	METAL GLAZE	6.8	5%	1/10W	
R51	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R52	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R53	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R54	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R55	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R58	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R59	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R60	1-216-076-00	METAL GLAZE	13K	5%	1/10W	
R61	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R62	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R63	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R65	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R66	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R67	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R68	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R69	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV01	1-238-012-11	RES, ADJ, CARBON 1K				
		<CRYSTAL>				
X01	1-567-162-00	OSCILLATOR, CRYSTAL				
X02	1-567-495-11	OSCILLATOR, CRYSTAL				
X03	1-577-082-11	VIBRATOR, CERAMIC				
**********						
	*A-1621-001-A	B BOARD, COMPLETE				
		**********				
	*1-565-393-11	CONNECTOR, BOARD TO BOARD				
	*1-568-878-51	PIN, CONNECTOR 3P				
	*1-568-881-51	PIN, CONNECTOR 6P				
	*1-568-881-61	PIN, CONNECTOR 6P				
		<CAPACITOR>				
C301	1-106-228-00	MYLAR	0.22MF	10%	100V	
C302	1-106-228-00	MYLAR	0.22MF	10%	100V	
C303	1-124-122-11	ELECT	100MF	20%	50V	
C304	1-106-228-00	MYLAR	0.22MF	10%	100V	
C305	1-124-119-00	ELECT	330MF	20%	16V	
C306	1-124-902-00	ELECT	0.47MF	20%	50V	
C307	1-124-902-00	ELECT	0.47MF	20%	50V	
C308	1-124-902-00	ELECT	0.47MF	20%	50V	
C309	1-124-902-00	ELECT	0.47MF	20%	50V	
C310	1-106-220-00	MYLAR	0.1MF	10%	100V	
C311	1-106-220-00	MYLAR	0.1MF	10%	100V	
C312	1-124-902-00	ELECT	0.47MF	20%	50V	
C313	1-124-902-00	ELECT	0.47MF	20%	50V	
C314	1-124-902-00	ELECT	0.47MF	20%	50V	
C315	1-124-791-11	ELECT	1MF	20%	50V	
C316	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C317	1-124-910-11	ELECT	47MF	20%	50V	
C318	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C320	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C323	1-102-947-00	CERAMIC	10PF	0.5PF	50V	
C327	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C330	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C331	1-163-077-00	CERAMIC CHIP	0.1MF		50V	
C332	1-126-103-11	ELECT	470MF	20%	16V	
C333	1-106-375-12	MYLAR	0.022MF	10%	250V	
C334	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C335	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C336	1-102-816-00	CERAMIC	120PF	5%	50V	
C337	1-164-232-11	CERAMIC CHIP	0.01MF		50V	
C338	1-106-220-00	MYLAR	0.1MF	10%	100V	
C339	1-106-220-00	MYLAR	0.1MF	10%	100V	
C341	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C343	1-106-383-00	MYLAR	0.047MF	10%	100V	
C344	1-130-783-00	MYLAR	0.33MF	10%	100V	

B

REF.NO.	PART NO.	DESCRIPTION			REMARK
C345	1-163-123-00	CERAMIC CHIP	180PF	5% 50V	
C346	1-163-033-00	CERAMIC CHIP	0.022MF	50V	
C347	1-124-791-11	ELECT	1MF	20% 50V	
C348	1-124-791-11	ELECT	1MF	20% 50V	
C349	1-164-232-11	CERAMIC CHIP	0.01MF	50V	
C350	1-164-232-11	CERAMIC CHIP	0.01MF	50V	
C351	1-106-375-12	MYLAR	0.022MF	10% 250V	
C352	1-106-375-12	MYLAR	0.022MF	10% 250V	
C353	1-163-063-00	CERAMIC CHIP	0.022MF	10% 50V	
C354	1-124-910-11	ELECT	47MF	20% 50V	
C357	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C358	1-124-917-11	ELECT	33MF	20% 50V	
C359	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C360	1-164-232-11	CERAMIC CHIP	0.01MF	50V	
C364	1-163-105-00	CERAMIC CHIP	33PF	5% 50V	
C365	1-124-910-11	ELECT	47MF	20% 50V	
C366	1-126-103-11	ELECT	470MF	20% 16V	
C367	1-164-232-11	CERAMIC CHIP	0.01MF	50V	
C381	1-124-902-00	ELECT	0.47MF	20% 50V	
C382	1-124-927-11	ELECT	4.7MF	20% 50V	
C384	1-124-910-11	ELECT	47MF	20% 50V	
C385	1-124-927-11	ELECT	4.7MF	20% 50V	
C386	1-124-927-11	ELECT	4.7MF	20% 50V	
C387	1-124-791-11	ELECT	1MF	20% 50V	
C388	1-106-220-00	MYLAR	0.1MF	10% 100V	
C401	1-101-361-00	CERAMIC	150PF	5% 50V	
C402	1-163-197-00	CERAMIC CHIP	470PF	5% 50V	
C403	1-164-232-11	CERAMIC CHIP	0.01MF	50V	
C1311	1-163-105-00	CERAMIC CHIP	33PF	5% 50V	
C1312	1-163-101-00	CERAMIC CHIP	22PF	5% 50V	
C1313	1-102-953-00	CERAMIC	18PF	5% 50V	
		<TRIMMER>			
CT331	1-141-181-11	CAP,TRIMMER			
CT332	1-141-181-11	CAP,TRIMMER			
		<DIODE>			
D301	8-719-911-19	DIODE 1SS119			
D302	8-719-911-19	DIODE 1SS119			
D303	8-719-911-19	DIODE 1SS119			
D304	8-719-911-19	DIODE 1SS119			
D305	8-719-911-19	DIODE 1SS119			
D307	8-719-110-23	DIODE RD11ES-B3			
D308	8-719-800-76	DIODE 1SS226			
D309	8-719-911-19	DIODE 1SS119			
D310	8-719-110-23	DIODE RD11ES-B3			
D311	8-719-110-23	DIODE RD11ES-B3			
D312	8-719-110-23	DIODE RD11ES-B3			
D313	8-719-911-19	DIODE 1SS119			
D314	8-719-911-19	DIODE 1SS119			
D315	8-719-911-19	DIODE 1SS119			
D316	8-719-911-19	DIODE 1SS119			
D317	8-719-911-19	DIODE 1SS119			
D318	8-719-911-19	DIODE 1SS119			
D319	8-719-911-19	DIODE 1SS119			
D320	8-719-911-19	DIODE 1SS119			
D331	8-719-911-19	DIODE 1SS119			
D332	8-719-911-19	DIODE 1SS119			
D333	8-719-911-19	DIODE 1SS119			
D350	8-719-109-90	DIODE RD5.6ES-B3			

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DELAY LINE>				
DL332	1-236-062-11	MODULE, Y DELAY LINE				
DL401	1-415-613-11	DELAY LINE, Y				
		<IC>				
IC301	8-759-979-85	IC TDA4580-V4				
IC302	8-759-980-60	IC TDA8442-N3				
IC303	8-759-240-53	IC TC4053BP				
IC331	8-759-990-29	IC TDA4650				
IC332	8-759-990-30	IC TDA4660				
IC1301	1-235-534-11	CONTROL MODULE, PICTURE				
		<COIL>				
L301	1-410-868-21	INDUCTOR	4.7UH			
L302	1-410-868-21	INDUCTOR	4.7UH			
L331	1-404-554-11	COIL				
L336	1-404-554-11	COIL				
L338	1-408-409-00	INDUCTOR	10UH			
L1301	1-408-425-00	INDUCTOR	220UH			
L1302	1-408-419-00	INDUCTOR	68UH			
		<TRANSISTOR>				
Q303	8-729-271-22	TRANSISTOR 2SC2712-G				
Q305	8-729-901-00	TRANSISTOR DTC124EK				
Q306	8-729-271-22	TRANSISTOR 2SC2712-G				
Q311	8-729-271-22	TRANSISTOR 2SC2712-G				
Q312	8-729-271-22	TRANSISTOR 2SC2712-G				
Q313	8-729-271-22	TRANSISTOR 2SC2712-G				
Q316	8-729-271-22	TRANSISTOR 2SC2712-G				
Q330	8-729-216-22	TRANSISTOR 2SA1162-G				
Q331	8-729-901-00	TRANSISTOR DTC124EK				
Q332	8-729-216-22	TRANSISTOR 2SA1162-G				
Q333	8-729-216-22	TRANSISTOR 2SA1162-G				
Q334	8-729-271-22	TRANSISTOR 2SC2712-G				
Q335	8-729-271-22	TRANSISTOR 2SC2712-G				
Q336	8-729-901-00	TRANSISTOR DTC124EK				
Q381	8-729-901-00	TRANSISTOR DTC124EK				
Q382	8-729-271-22	TRANSISTOR 2SC2712-G				
Q1301	8-729-901-00	TRANSISTOR DTC124EK				
Q1305	8-729-271-22	TRANSISTOR 2SC2712-G				
Q1306	8-729-271-22	TRANSISTOR 2SC2712-G				
		<RESISTOR>				
R301	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R302	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R303	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R304	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R308	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R312	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R314	1-216-182-00	METAL GLAZE	220	5%	1/8W	
R315	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R316	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R317	1-216-027-00	METAL GLAZE	120	5%	1/10W	

B F1

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R318	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R319	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R320	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R321	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R322	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R323	1-249-422-11	CARBON	2.7K	5%	1/4W	
R324	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R325	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R328	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R329	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R330	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R331	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R332	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R333	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R334	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R335	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R336	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R337	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R338	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R339	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R340	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R341	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R342	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R344	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R346	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R348	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R355	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R356	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R357	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R359	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R360	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R361	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R363	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R364	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R365	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R366	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R367	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R376	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R378	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R379	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R380	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R381	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R382	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R383	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R385	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R386	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R388	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R389	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R391	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R392	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R393	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R394	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R401	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R402	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R405	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R406	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R407	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R410	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1303	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1304	1-216-097-00	METAL GLAZE	100K	5%	1/10W	

<VARIABLE RESISTOR>

RV331	1-238-012-11	RES, ADJ, CARBON 1K	

<CRYSTAL>

X331	1-567-307-11	OSCILLATOR, CRYSTAL	
X332	1-567-131-00	OSCILLATOR, CRYSTAL	

****

	*1-631-216-12	F1 BOARD			
		********			
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
	*1-565-395-11	PIN, CONNECTOR 3P			
	*1-566-664-11	PIN, CONNECTOR 4P			
	*1-568-106-11	PIN, CONNECTOR 4P			
	*1-568-878-51	PIN, CONNECTOR 3P			

<CAPACITOR>

C1601⚠	1-136-518-11	FILM	0.33MF	20%	300V
C1602⚠	1-136-519-11	FILM	0.47MF	20%	300V
C1603⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1604⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1605⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1606⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1607⚠	1-161-964-61	CERAMIC	0.0047MF		250V

<FUSE>

F1601⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V	
	1-533-087-00	HOLDER, FUSE; F601	

<TRAMSFORMER>

LF1601⚠	1-421-866-12	LFT
LF1602⚠	1-421-776-11	LFT
LF1603⚠	1-421-592-21	TRANSFORMER, FERRITE

<RESISTOR>

R1601⚠	1-246-513-75	CARBON	47K	5%	1/4W
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W F
R1604⚠	1-246-513-75	CARBON	47K	5%	1/4W
R1605⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W

<THEMRISTOR>

THP601⚠	1-808-059-31	THERMISTOR, POSITIVE

****

F2 A C

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*1-631-223-11	F2 BOARD				
		********				
	*1-566-664-11	PIN, CONNECTOR 4P				
		<SWITCH>				
S1701	⚠1-571-433-11	SWITCH, PUSH (AC POWER)				
		**********				
	*A-1632-001-A	A BOARD, COMPLETE				
		**********				
	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
	*1-564-881-11	PLUG, CONNECTOR 4P				
	*1-564-886-11	PLUG, CONNECTOR 9P				
	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P				
	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P				
		<CAPACITOR>				
C101	1-126-233-11	ELECT	22MF	20%	50V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C104	1-124-910-11	ELECT	47MF	20%	50V	
C106	1-126-233-11	ELECT	22MF	20%	50V	
C108	1-136-165-00	FILM	0.1MF	5%	50V	
C109	1-102-824-00	CERAMIC	470PF	5%	50V	
C111	1-124-925-11	ELECT	2.2MF	20%	50V	
C115	1-124-925-11	ELECT	2.2MF	20%	50V	
C127	1-124-122-11	ELECT	100MF	20%	50V	
C128	1-124-910-11	ELECT	47MF	20%	50V	
C129	1-124-910-11	ELECT	47MF	20%	50V	
C138	1-136-165-00	FILM	0.1MF	5%	50V	
C171	1-102-114-00	CERAMIC	470PF	10%	50V	
C172	1-102-114-00	CERAMIC	470PF	10%	50V	
C177	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C181	1-101-004-00	CERAMIC	0.01MF		50V	
		<IC>				
IC103	8-759-979-62	IC PCF8574				
		<COIL>				
L100	1-410-116-11	INDUCTOR	0.56MMH			
L101	1-408-225-00	INDUCTOR	3.3UH			
L102	1-408-413-00	INDUCTOR	22UH			
L107	1-408-397-00	INDUCTOR	1UH			
		<TRANSISTOR>				
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q125	8-729-900-89	TRANSISTOR DTC144ES				
Q126	8-729-900-65	TRANSISTOR DTA144ES				
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R101	1-249-405-11	CARBON	100	5%	1/4W	
R105	1-249-432-11	CARBON	18K	5%	1/4W	
R107	1-249-433-11	CARBON	22K	5%	1/4W	
R108	1-249-432-11	CARBON	18K	5%	1/4W	
R110	1-249-429-11	CARBON	10K	5%	1/4W	
R111	1-249-423-11	CARBON	3.3K	5%	1/4W	
R116	1-249-404-00	CARBON	82	5%	1/4W	
R118	1-249-435-11	CARBON	33K	5%	1/4W	
R128	1-249-406-11	CARBON	120	5%	1/4W	
R129	1-249-421-11	CARBON	2.2K	5%	1/4W	
R130	1-249-421-11	CARBON	2.2K	5%	1/4W	
R157	1-249-417-11	CARBON	1K	5%	1/4W	
R158	1-249-409-11	CARBON	220	5%	1/4W	
R159	1-249-409-11	CARBON	220	5%	1/4W	
R161	1-249-437-11	CARBON	47K	5%	1/4W	
R162	1-249-440-11	CARBON	82K	5%	1/4W	
R163	1-249-440-11	CARBON	82K	5%	1/4W	
R164	1-249-430-11	CARBON	12K	5%	1/4W	
R165	1-249-430-11	CARBON	12K	5%	1/4W	
R167	1-249-422-11	CARBON	2.7K	5%	1/4W	
R168	1-249-437-11	CARBON	47K	5%	1/4W	
R169	1-249-422-11	CARBON	2.7K	5%	1/4W	
R181	1-249-417-11	CARBON	1K	5%	1/4W	
R182	1-249-425-11	CARBON	4.7K	5%	1/4W	
R193	1-249-429-11	CARBON	10K	5%	1/4W	
R194	1-249-401-11	CARBON	47	5%	1/4W	
R195	1-249-401-11	CARBON	47	5%	1/4W	
		<IF BLOCK>				
SIF102	1-464-964-12	IF BLOCK (IFG-5.5S)				
VIF101	1-466-154-13	IF BLOCK (IFG-389S)				
		<TUNER>				
TU101	⚠1-465-301-11	TUNER, ET (UV-816(PLL))				
		**********				
	*A-1638-001-A	C BOARD, COMPLETE				
		**********				
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
	*1-568-878-61	PIN, CONNECTOR 3P				
	*1-568-881-51	PIN, CONNECTOR 6P				
	*4-379-160-01	COVER (REAR LID), CV				
	*4-379-167-01	COVER (MAIN), CV				
	*4-386-664-01	SPRING				
		<CONNECTOR>				
C71	*1-506-371-00	PIN, CONNECTOR 2P				
		<CAPACITOR>				
C703	1-102-980-00	CERAMIC	270PF	5%	50V	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C705	1-102-978-00	CERAMIC	220PF	5%	50V	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-980-00	CERAMIC	270PF	5%	50V	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C716	1-162-622-11	CERAMIC	330PF	10%	400V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DIODE>				
D701	8-719-110-14	DIODE RD9.1ES-B3				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-300-33	DIODE RU-3AM				
D713	8-719-911-19	DIODE 1SS119				
		<JACK>				
J701	1-526-798-51	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-410-878-21	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-326-11	TRANSISTOR 2SC2611				
Q704	8-729-200-17	TRANSISTOR 2SA1091-O				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q707	8-729-200-17	TRANSISTOR 2SA1091-O				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-326-11	TRANSISTOR 2SC2611				
Q710	8-729-200-17	TRANSISTOR 2SA1091-O				
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/6W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/6W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-342-11	METAL OXIDE	0.27	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/6W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-485-00	METAL	470K	1%	1/6W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702⚠	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-237-749-11	RES, ADJ, CARBON 2200				
RV704	1-237-749-11	RES, ADJ, CARBON 2200				

****

*A-1642-001-A	D BOARD, COMPLETE	
	**********	
*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
*1-564-505-11	PLUG, CONNECTOR 2P	
*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR	
*1-565-395-11	PIN, CONNECTOR 3P	
*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P	
*1-568-536-11	PLUG (MINIATURE DY) 6P	
*1-568-878-51	PIN, CONNECTOR 3P	
*1-568-879-61	PIN, CONNECTOR 4P	
*1-568-879-71	PIN, CONNECTOR 4P	
*1-568-881-61	PIN, CONNECTOR 6P	
*1-568-882-51	PIN, CONNECTOR 7P	
*1-568-882-71	PIN, CONNECTOR 7P	
4-200-001-01	HOLDER, IC	
*4-341-751-01	EYELET	
*4-341-752-01	EYELET	
*4-368-683-01	SPRING	

		<CAPACITOR>			
C002	1-102-074-00	CERAMIC	0.001MF	10%	50V
C003	1-126-233-11	ELECT	22MF	20%	50V
C004	1-124-120-11	ELECT	220MF	20%	16V
C005	1-124-791-11	ELECT	1MF	20%	50V
C006	1-102-978-00	CERAMIC	220PF	5%	50V
C007	1-102-978-00	CERAMIC	220PF	5%	50V
C008	1-101-880-00	CERAMIC	47PF	5%	50V
C009	1-101-880-00	CERAMIC	47PF	5%	50V
C010	1-124-120-11	ELECT	220MF	20%	16V
C011	1-101-004-00	CERAMIC	0.01MF		50V
C012	1-123-875-11	ELECT	10MF	20%	50V
C013	1-106-220-00	MYLAR	0.1MF	10%	100V
C014	1-106-220-00	MYLAR	0.1MF	10%	100V
C015	1-124-902-00	ELECT	0.47MF	20%	50V
C016	1-101-361-00	CERAMIC	150PF	5%	50V
C017	1-106-220-00	MYLAR	0.1MF	10%	100V
C018	1-102-980-00	CERAMIC	270PF	5%	50V
C019	1-106-383-00	MYLAR	0.047MF	10%	100V
C020	1-124-917-11	ELECT	33MF	20%	50V
C021	1-102-973-00	CERAMIC	100PF	5%	50V
C022	1-101-004-00	CERAMIC	0.01MF		50V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

D

REF.NO.	PART NO.	DESCRIPTION			REMARK
C023	1-102-973-00	CERAMIC	100PF	5%	50V
C024	1-102-973-00	CERAMIC	100PF	5%	50V
C025	1-102-973-00	CERAMIC	100PF	5%	50V
C027	1-124-910-11	ELECT	47MF	20%	50V
C251	1-124-791-11	ELECT	1MF	20%	50V
C252	1-126-233-11	ELECT	22MF	20%	50V
C253	1-102-074-00	CERAMIC	0.001MF	10%	50V
C254	1-106-220-00	MYLAR	0.1MF	10%	100V
C255	1-124-636-00	ELECT	3300MF	20%	25V
C261	1-124-791-11	ELECT	1MF	20%	50V
C262	1-126-233-11	ELECT	22MF	20%	50V
C263	1-102-074-00	CERAMIC	0.001MF	10%	50V
C264	1-106-220-00	MYLAR	0.1MF	10%	100V
C265	1-124-564-11	ELECT	4700MF	20%	25V
C501	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V
C503	1-106-371-00	MYLAR	0.015MF	10%	400V
C504	1-101-361-00	CERAMIC	150PF	5%	50V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V
C506	1-106-375-12	MYLAR	0.022MF	10%	250V
C507	1-130-783-00	MYLAR	0.33MF	10%	100V
C508	1-106-375-12	MYLAR	0.022MF	10%	250V
C509	1-106-220-00	MYLAR	0.1MF	10%	100V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V
C512	1-106-220-00	MYLAR	0.1MF	10%	100V
C513	1-102-978-00	CERAMIC	220PF	5%	50V
C514	1-106-228-00	MYLAR	0.22MF	10%	100V
C515	1-124-791-11	ELECT	1MF	20%	50V
C516	1-108-614-11	MYLAR	0.001MF	10%	100V
C517	1-124-252-00	ELECT	0.33MF	20%	50V
C518	1-124-902-00	ELECT	0.47MF	20%	50V
C519	1-136-171-00	FILM	0.33MF	5%	50V
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C521	1-106-220-00	MYLAR	0.1MF	10%	100V
C522	1-124-122-11	ELECT	100MF	20%	50V
C523	1-108-614-11	MYLAR	0.001MF	10%	100V
C524	1-108-798-11	MYLAR	0.0033MF	5%	50V
C525	1-102-973-00	CERAMIC	100PF	5%	50V
C526	1-102-951-00	CERAMIC	15PF	5%	50V
C527	1-106-220-00	MYLAR	0.1MF	10%	100V
C531	1-124-190-00	ELECT	680MF	10%	25V
C532	1-124-122-11	ELECT	100MF	20%	50V
C533	1-106-216-00	MYLAR	0.068MF	10%	100V
C534	1-124-120-11	ELECT	220MF	20%	16V
C536	1-131-365-00	TANTALUM	10MF	10%	16V
C537	1-124-791-11	ELECT	1MF	20%	50V
C539	1-102-820-00	CERAMIC	330PF	5%	50V
C592	1-124-122-11	ELECT	100MF	20%	50V
C593	1-102-820-00	CERAMIC	330PF	5%	50V
C601 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C602 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C603 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V
C604 ⚠	1-125-318-11	ELECT(BLOCK)	220MF	20%	400V
C605	1-124-510-11	ELECT	220MF	20%	35V
C606	1-102-114-00	CERAMIC	470PF	10%	50V
C607	1-130-834-00	MYLAR	1MF	10%	63V
C608	1-124-927-11	ELECT	4.7MF	20%	50V
C609	1-126-233-11	ELECT	22MF	20%	50V
C611	1-124-910-11	ELECT	47MF	20%	50V
C612	1-108-614-11	MYLAR	0.001MF	10%	100V
C613	1-136-539-11	FILM	0.0022MF	3%	2KV
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-124-557-11	ELECT	1000MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-124-972-11	ELECT	1.5MF	20%	100V
C618	1-162-115-00	CERAMIC	330PF	10%	2KV
C619	1-124-556-11	ELECT	2200MF	20%	16V
C620	1-136-173-00	FILM	0.47MF	5%	50V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-124-556-11	ELECT	2200MF	20%	16V
C623	1-124-910-11	ELECT	47MF	20%	50V
C624	1-124-122-11	ELECT	100MF	20%	50V
C625	1-124-360-00	ELECT	1000MF	20%	16V
C626	1-123-875-11	ELECT	10MF	20%	50V
C627	1-108-614-11	MYLAR	0.001MF	10%	100V
C628	1-162-116-00	CERAMIC	680PF	10%	2KV
C631	1-124-910-11	ELECT	47MF	20%	50V
C632	1-102-074-00	CERAMIC	0.001MF	10%	50V
C633	1-102-973-00	CERAMIC	100PF	5%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-030-00	CERAMIC	330PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C806	1-106-220-00	MYLAR	0.1MF	10%	100V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-123-024-21	ELECT	33MF		160V
C811	1-136-113-00	FILM	2MF	5%	200V
C812	1-124-634-11	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C815	1-136-540-11	FILM	0.82MF	5%	200V
C817	1-136-591-11	FILM	0.017MF	3%	1.4KV
C818	1-136-759-11	FILM	0.039MF	10%	630V
C819 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C820	1-106-218-00	MYLAR	0.0082MF	10%	400V
C821 ⚠	1-162-134-51	CERAMIC	470PF	10%	2KV
C822	1-102-114-00	CERAMIC	470PF	10%	50V
C823	1-106-359-00	MYLAR	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-106-375-12	MYLAR	0.022MF	10%	250V

<FILTER>

CF001	1-577-364-11	VIBRATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<CONNECTOR>

D44	*1-568-881-51	PIN, CONNECTOR 6P

<DIODE>

D001	8-719-911-19	DIODE 1SS119
D002	8-719-109-98	DIODE RD6.8ES-B3
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-109-89	DIODE RD5.6ES-B2
D006	8-719-110-76	DIODE RD33ES-B1
D007	8-719-911-19	DIODE 1SS119
D009	8-719-109-89	DIODE RD5.6ES-B2
D010	8-719-109-93	DIODE RD6.2ES-B2
D011	8-719-109-93	DIODE RD6.2ES-B2
D271	8-719-110-36	DIODE RD13ES-B2
D272	8-719-911-19	DIODE 1SS119
D501	8-719-911-19	DIODE 1SS119
D504	8-719-911-55	DIODE H05G
D506	8-719-016-42	DIODE MC932

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D508	8-719-911-19	DIODE 1SS119	
D509	8-719-911-19	DIODE 1SS119	
D511	8-719-911-55	DIODE U05G	
D512	8-719-911-55	DIODE U05G	
D513	8-719-109-81	DIODE RD4.7ES-B2	
D514	8-719-911-19	DIODE 1SS119	
D515	8-719-911-19	DIODE 1SS119	
D601⚠	8-719-946-90	DIODE KBU4JL-6088	
D602	8-719-300-33	DIODE RU-3AM	
D603	8-719-911-55	DIODE U05G	
D604	8-719-911-55	DIODE U05G	
D605	8-719-911-55	DIODE U05G	
D606	8-719-300-33	DIODE RU-3AM	
D607	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-110-76	DIODE RD33ES-B1	
D610	8-719-300-59	DIODE CTU-12S	
D611	8-719-900-26	DIODE ERD29-08J	
D612	8-719-300-59	DIODE CTU-12S	
D613	8-719-300-33	DIODE RU-3AM	
D614	8-719-300-33	DIODE RU-3AM	
D616	8-719-109-93	DIODE RD6.2ES-B2	
D617	8-719-911-19	DIODE 1SS119	
D618	8-719-109-89	DIODE RD5.6ES-B2	
D619	8-719-110-76	DIODE RD33ES-B1	
D620	8-719-016-42	DIODE MC932	
D621	8-719-110-76	DIODE RD33ES-B1	
D622	8-719-911-19	DIODE 1SS119	
D623	8-719-911-19	DIODE 1SS119	
D624	8-719-911-19	DIODE 1SS119	
D630	8-719-110-39	DIODE RD15ES-B1	
D801	8-719-300-33	DIODE RU-3AM	
D802	8-719-300-33	DIODE RU-3AM	
D803	8-719-300-65	DIODE ES1F	
D804	8-719-911-55	DIODE U05G	
D805	8-719-911-55	DIODE U05G	
D806	8-719-945-80	DIODE ERC06-15S	
D807	8-719-945-80	DIODE ERC06-15S	
D808	8-719-900-26	DIODE ERD29-08J	
		<IC>	
IC001	8-759-035-37	IC SDA2083-A006	
IC002	8-752-332-82	IC CXD1050A-09P	
IC003	8-759-945-58	IC RC4558P	
IC005	8-759-748-56	IC SDA2546	
IC251	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC251	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC261	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC601	8-759-988-95	IC TEA2260	
IC604	8-759-144-84	IC UPC24M05HF	
IC608	8-759-982-13	IC RC7812FA	
		<COIL>	
L001	1-408-414-00	INDUCTOR 27UH	
L501	1-408-225-00	INDUCTOR 3.3UH	
L601	*1-420-872-00	COIL, AIR CORE	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-671-31	INDUCTOR 47UH	
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH	
L607	1-410-671-31	INDUCTOR 47UH	
L801	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L803	1-459-104-00	COIL, DUST CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805⚠	1-459-907-22	COIL, HORIZONTAL LINEARITY	
L806	1-459-087-00	COIL,HCC DUST CORE 3.9MMH	
L809	*1-420-872-00	COIL, AIR CORE	
L810⚠	1-421-794-21	TRANSFORMER, FERRITE (PMT)	
		<IC LINK>	
PS601⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS602⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS603⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
		<TRANSISTOR>	
Q001	8-729-900-89	TRANSISTOR DTC144ES	
Q002	8-729-900-65	TRANSISTOR DTA144ES	
Q003	8-729-173-38	TRANSISTOR 2SA733-K	
Q004	8-729-173-38	TRANSISTOR 2SA733-K	
Q005	8-729-900-89	TRANSISTOR DTC144ES	
Q006	8-729-900-89	TRANSISTOR DTC144ES	
Q007	8-729-900-89	TRANSISTOR DTC144ES	
Q008	8-729-900-89	TRANSISTOR DTC144ES	
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q271	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q502	8-729-173-38	TRANSISTOR 2SA733-K	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-173-38	TRANSISTOR 2SA733-K	
Q598	8-729-173-38	TRANSISTOR 2SA733-K	
Q601	8-729-111-67	TRANSISTOR 2SB1094-L	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
Q603	8-729-111-67	TRANSISTOR 2SB1094-L	
Q604	8-729-173-38	TRANSISTOR 2SA733-K	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q607	8-729-920-92	TRANSISTOR 2SD2096-FF	
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q609	8-729-320-62	TRANSISTOR 2SD789-34	
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
		<RESISTOR>	
R001	1-249-413-11	CARBON 470 5% 1/4W	
R002	1-249-413-11	CARBON 470 5% 1/4W	
R003	1-249-417-11	CARBON 1K 5% 1/4W	
R004	1-249-417-11	CARBON 1K 5% 1/4W	
R005	1-249-417-11	CARBON 1K 5% 1/4W	
R006	1-249-429-11	CARBON 10K 5% 1/4W	
R007	1-249-425-11	CARBON 4.7K 5% 1/4W	
R008	1-249-429-11	CARBON 10K 5% 1/4W	
R009	1-249-429-11	CARBON 10K 5% 1/4W	
R010	1-249-413-11	CARBON 470 5% 1/4W	
R011	1-249-425-11	CARBON 4.7K 5% 1/4W	
R012	1-249-417-11	CARBON 1K 5% 1/4W	
R013	1-249-429-11	CARBON 10K 5% 1/4W	
R014	1-249-428-11	CARBON 8.2K 5% 1/4W	

D

REF.NO.	PART NO.	DESCRIPTION				REMARK
R015	1-249-423-11	CARBON	3.3K	5%	1/4W	
R016	1-249-435-11	CARBON	33K	5%	1/4W	
R017	1-249-436-11	CARBON	39K	5%	1/4W	
R018	1-249-440-11	CARBON	82K	5%	1/4W	
R019	1-249-417-11	CARBON	1K	5%	1/4W	
R020	1-249-417-11	CARBON	1K	5%	1/4W	
R021	1-249-425-11	CARBON	4.7K	5%	1/4W	
R022	1-249-425-11	CARBON	4.7K	5%	1/4W	
R023	1-249-410-11	CARBON	270	5%	1/4W	
R024	1-249-417-11	CARBON	1K	5%	1/4W	
R025	1-249-405-11	CARBON	100	5%	1/4W	
R026	1-249-417-11	CARBON	1K	5%	1/4W	
R027	1-249-405-11	CARBON	100	5%	1/4W	
R028	1-249-405-11	CARBON	100	5%	1/4W	
R029	1-249-429-11	CARBON	10K	5%	1/4W	
R030	1-249-429-11	CARBON	10K	5%	1/4W	
R031	1-249-433-11	CARBON	22K	5%	1/4W	
R032	1-249-429-11	CARBON	10K	5%	1/4W	
R033	1-249-429-11	CARBON	10K	5%	1/4W	
R034	1-249-431-11	CARBON	15K	5%	1/4W	
R035	1-249-433-11	CARBON	22K	5%	1/4W	
R036	1-249-432-11	CARBON	18K	5%	1/4W	
R037	1-249-425-11	CARBON	4.7K	5%	1/4W	
R038	1-249-422-11	CARBON	2.7K	5%	1/4W	
R039	1-249-433-11	CARBON	22K	5%	1/4W	
R040	1-249-431-11	CARBON	15K	5%	1/4W	
R041	1-249-429-11	CARBON	10K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W	
R043	1-249-413-11	CARBON	470	5%	1/4W	
R044	1-249-441-11	CARBON	100K	5%	1/4W	
R045	1-249-423-11	CARBON	3.3K	5%	1/4W	
R046	1-249-435-11	CARBON	33K	5%	1/4W	
R047	1-249-429-11	CARBON	10K	5%	1/4W	
R048	1-249-429-11	CARBON	10K	5%	1/4W	
R049	1-249-429-11	CARBON	10K	5%	1/4W	
R050	1-249-426-11	CARBON	5.6K	5%	1/4W	
R051	1-249-413-11	CARBON	470	5%	1/4W	
R052	1-249-417-11	CARBON	1K	5%	1/4W	
R053	1-249-417-11	CARBON	1K	5%	1/4W	
R054	1-249-417-11	CARBON	1K	5%	1/4W	
R055	1-249-411-11	CARBON	330	5%	1/4W	
R056	1-249-405-11	CARBON	100	5%	1/4W	
R057	1-249-409-11	CARBON	220	5%	1/4W	
R058	1-249-424-11	CARBON	3.9K	5%	1/4W	
R059	1-249-417-11	CARBON	1K	5%	1/4W	
R060	1-249-417-11	CARBON	1K	5%	1/4W	
R061	1-249-417-11	CARBON	1K	5%	1/4W	
R062	1-249-417-11	CARBON	1K	5%	1/4W	
R063	1-249-417-11	CARBON	1K	5%	1/4W	
R064	1-249-417-11	CARBON	1K	5%	1/4W	
R065	1-249-417-11	CARBON	1K	5%	1/4W	
R066	1-249-417-11	CARBON	1K	5%	1/4W	
R067	1-249-417-11	CARBON	1K	5%	1/4W	
R068	1-249-417-11	CARBON	1K	5%	1/4W	
R069	1-249-417-11	CARBON	1K	5%	1/4W	
R070	1-249-417-11	CARBON	1K	5%	1/4W	
R071	1-249-417-11	CARBON	1K	5%	1/4W	
R072	1-249-417-11	CARBON	1K	5%	1/4W	
R073	1-249-417-11	CARBON	1K	5%	1/4W	
R074	1-249-425-11	CARBON	4.7K	5%	1/4W	
R075	1-249-409-11	CARBON	220	5%	1/4W	
R251	1-249-425-11	CARBON	4.7K	5%	1/4W	
R252	1-249-412-11	CARBON	390	5%	1/4W	
R253	1-249-429-11	CARBON	10K	5%	1/4W	
R254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R255	1-249-429-11	CARBON	10K	5%	1/4W	
R256	1-247-897-11	CARBON	560K	5%	1/4W	
R257	1-249-431-11	CARBON	15K	5%	1/4W	
R258	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R259	1-249-425-11	CARBON	4.7K	5%	1/4W	
R261	1-249-425-11	CARBON	4.7K	5%	1/4W	
R262	1-249-412-11	CARBON	390	5%	1/4W	
R263	1-249-429-11	CARBON	10K	5%	1/4W	
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R265	1-249-429-11	CARBON	10K	5%	1/4W	
R266	1-247-897-11	CARBON	560K	5%	1/4W	
R267	1-249-431-11	CARBON	15K	5%	1/4W	
R268	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R269	1-249-425-11	CARBON	4.7K	5%	1/4W	
R271	1-249-415-11	CARBON	680	5%	1/4W	
R272	1-249-429-11	CARBON	10K	5%	1/4W	
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R500	1-247-897-11	CARBON	560K	5%	1/4W	
R501	1-249-413-11	CARBON	470	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W	
R504	1-215-427-00	METAL	1.8K	1%	1/6W	
R505	1-249-431-11	CARBON	15K	5%	1/4W	
R506	1-249-428-11	CARBON	8.2K	5%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R514	1-249-409-11	CARBON	220	5%	1/4W	
R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R517	1-249-429-11	CARBON	10K	5%	1/4W	
R518	1-249-437-11	CARBON	47K	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W	
R520	1-249-411-11	CARBON	330	5%	1/4W	
R521	1-249-405-11	CARBON	100	5%	1/4W	
R522	1-215-469-00	METAL	100K	1%	1/6W	
R523	1-249-417-11	CARBON	1K	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-249-408-11	CARBON	180	5%	1/4W	
R529	1-249-427-11	CARBON	6.8K	5%	1/4W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-247-881-00	CARBON	120K	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W	
R534	1-247-901-11	CARBON	820K	5%	1/4W	
R535	1-249-749-00	CARBON	2.2M	5%	1/4W	
R536	1-249-749-00	CARBON	2.2M	5%	1/4W	
R537	1-249-434-11	CARBON	27K	5%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-247-883-00	CARBON	150K	5%	1/4W	
R540	1-249-399-11	CARBON	33	5%	1/4W	
R541	1-249-438-11	CARBON	56K	5%	1/4W	
R542	1-249-389-11	CARBON	4.7	5%	1/4W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-249-433-11	CARBON	22K	5%	1/4W	
R546	1-249-434-11	CARBON	27K	5%	1/4W	
R547	1-249-423-11	CARBON	3.3K	5%	1/4W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-249-440-11	CARBON	82K	5%	1/4W	
R551	1-249-749-00	CARBON	2.2M	5%	1/4W	
R553	1-216-869-11	METAL OXIDE	1K	5%	1W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R554	1-249-411-11	CARBON	330	5%	1/4W	
R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R560	1-249-411-11	CARBON	330	5%	1/4W	
R570	1-249-415-11	CARBON	680	5%	1/4W	
R591	1-249-416-11	CARBON	820	5%	1/4W	
R592	1-249-417-11	CARBON	1K	5%	1/4W	
R593	1-249-419-11	CARBON	1.5K	5%	1/4W	
R594	1-249-428-11	CARBON	8.2K	5%	1/4W	
R597	1-249-413-11	CARBON	470	5%	1/4W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R599	1-247-887-00	CARBON	220K	5%	1/4W	
R600	1-249-381-11	CARBON	1	5%	1/4W	
R601	1-249-441-11	CARBON	100K	5%	1/4W	
R603	1-216-400-11	METAL OXIDE	8.2	5%	3W	F
R604	1-249-405-11	CARBON	100	5%	1/4W	
R605	1-249-433-11	CARBON	22K	5%	1/4W	
R606	1-249-418-11	CARBON	1.2K	5%	1/4W	
R607	1-249-425-11	CARBON	4.7K	5%	1/4W	
R608 ⚠	1-216-488-51	METAL OXIDE	18K	5%	3W	F
R609	1-249-396-11	CARBON	18	5%	1/4W	
R610	1-244-941-00	CARBON	680K	5%	1/2W	
R611	1-249-400-11	CARBON	39	5%	1/4W	
R612	1-249-417-11	CARBON	1K	5%	1/4W	
R613	1-249-441-11	CARBON	100K	5%	1/4W	
R614	1-205-758-11	WIREWOUND	100	10%	10W	F
R616	1-247-881-00	CARBON	120K	5%	1/4W	
R617	1-249-411-11	CARBON	330	5%	1/4W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F
R619	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-433-11	CARBON	22K	5%	1/4W	
R621	1-249-431-11	CARBON	15K	5%	1/4W	
R622	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-433-11	CARBON	22K	5%	1/4W	
R624	1-249-426-11	CARBON	5.6K	5%	1/4W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F
R626	1-249-411-11	CARBON	330	5%	1/4W	
R628	1-249-393-11	CARBON	10	5%	1/4W	
R629	1-249-411-11	CARBON	330	5%	1/4W	
R633	1-249-417-11	CARBON	1K	5%	1/4W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F
R635	1-249-429-11	CARBON	10K	5%	1/4W	
R636	1-249-429-11	CARBON	10K	5%	1/4W	
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F
R647	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R648	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R651	1-249-405-11	CARBON	100	5%	1/4W	
R653	1-205-758-11	WIREWOUND	100	10%	10W	F
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-249-439-11	CARBON	68K	5%	1/4W	
R807	1-216-869-11	METAL OXIDE	1K	5%	1W	
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F
R812	1-249-494-11	CARBON	68K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F
R817	1-249-417-11	CARBON	1K	5%	1/4W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F
R822 ⚠	1-217-778-61	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-249-429-11	CARBON	10K	5%	1/4W	
R828	1-249-423-11	CARBON	3.3K	5%	1/4W	
R829	1-249-413-11	CARBON	470	5%	1/4W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R5501	1-249-429-11	CARBON	10K	5%	1/4W	
R5503	1-249-393-11	CARBON	10	5%	1/4W	
R5504	1-247-903-00	CARBON	1M	5%	1/4W	
R5505	1-249-393-11	CARBON	10	5%	1/4W	

<VARIABLE RESISTOR>

RV501	1-238-013-11	RES, ADJ, CARBON 2.2K				
RV502	1-238-016-11	RES, ADJ, CARBON 10K				
RV601	1-238-011-11	RES, ADJ, CARBON 470				

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK				

<TRANSFORMER>

T601 ⚠	1-449-822-11	TRANSFORMER				
T602 ⚠	1-424-277-11	TRANSFORMER, TRIGGER PULSE				
T801 ⚠	1-437-090-21	HDT				
T802 ⚠	1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)				

****

	*1-631-226-11	VM BOARD				
		********				
	*1-568-878-51	PIN, CONNECTOR 3P				
	*1-568-879-71	PIN, CONNECTOR 4P				

<CAPACITOR>

C751	1-101-361-00	CERAMIC	150PF	5%	50V
C752	1-108-629-11	MYLAR	0.018MF	10%	100V
C753	1-106-367-00	MYLAR	0.01MF	10%	400V
C754	1-102-980-00	CERAMIC	270PF	5%	50V
C757	1-108-692-11	MYLAR	0.01MF	10%	200V
C759	1-123-875-11	ELECT	10MF	20%	50V
C760	1-124-917-11	ELECT	33MF	20%	50V
C761	1-101-006-00	CERAMIC	0.047MF		50V
C762	1-106-367-00	MYLAR	0.01MF	10%	400V

<COIL>

L751	1-408-413-00	INDUCTOR	22UH			

<TRANSISTOR>

Q751	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q753	8-729-140-97	TRANSISTOR 2SB734-34				
Q754	8-729-140-96	TRANSISTOR 2SD774-34				

<RESISTOR>

R751	1-249-418-11	CARBON	1.2K	5%	1/4W	
R752	1-249-426-11	CARBON	5.6K	5%	1/4W	
R753	1-249-414-11	CARBON	560	5%	1/4W	
R754	1-249-434-11	CARBON	27K	5%	1/4W	
R755	1-249-405-11	CARBON	100	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

VM | **H1** | **H2** | **Y**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R756	1-249-419-11	CARBON	1.5K	5%	1/4W	
R757	1-249-405-11	CARBON	100	5%	1/4W	
R758	1-249-409-11	CARBON	220	5%	1/4W	
R760	1-249-411-11	CARBON	330	5%	1/4W	
R761	1-249-429-11	CARBON	10K	5%	1/4W	
R762	1-247-895-00	CARBON	470K	5%	1/4W	
R763	1-249-429-11	CARBON	10K	5%	1/4W	
R764	1-249-455-11	CARBON	4.7	5%	1/4W	F
R765	1-249-455-11	CARBON	4.7	5%	1/4W	F
R766	1-247-753-11	CARBON	1.2K	5%	1/2W	
R767	1-247-751-11	CARBON	820	5%	1/2W	
R768	1-215-887-00	METAL OXIDE	150	5%	2W	F
R769	1-212-889-00	FUSIBLE	220	5%	1/4W	F
R770	⚠1-212-936-51	FUSIBLE	1.2	5%	1/2W	F

****

	*1-631-220-11	H1 BOARD	
		********	
	1-562-837-11	JACK	
	*1-564-512-11	PLUG, CONNECTOR 9P	
	1-568-678-11	TERMINAL BLOCK, S 3P	
	*1-568-878-51	PIN, CONNECTOR 3P	
	*1-568-879-51	PIN, CONNECTOR 4P	
	*1-568-879-61	PIN, CONNECTOR 4P	
		<RESISTOR>	
R1651	1-249-413-11	CARBON 470	5% 1/4W
R1652	1-249-413-11	CARBON 470	5% 1/4W
		<SWITCH>	
S1651	1-571-532-21	SWITCH, TACTIL	
S1652	1-571-532-21	SWITCH, TACTIL	
S1653	1-571-532-21	SWITCH, TACTIL	

****

	*1-631-221-11	H2 BOARD	
		********	
	*1-568-882-51	PIN, CONNECTOR 7P	
	*4-374-987-01	GUIDE, LIGHT	
	*4-381-686-01	BRACKET (B), LIGHT GUIDE	
		<DIODE>	
D1651	8-719-311-89	DIODE SEL1222R-C	
	*4-387-801-01	HOLDER, LED; D1651	
D1652	8-719-311-89	DIODE SEL1222R-C	
	*4-387-801-01	HOLDER, LED; D1652	
D1653	8-719-311-89	DIODE SEL1222R-C	
	*4-387-801-01	HOLDER, LED; D1653	
D1654	8-719-948-31	DIODE LD-201VR	
	*4-387-825-02	HOLDER, LED; D1654	
		<IC>	
IC1651	8-741-138-70	IC BX-1387	
		<RESISTOR>	
R1661	1-249-413-11	CARBON 470	5% 1/4W
R1662	1-249-413-11	CARBON 470	5% 1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK

****

	*1-631-217-12	Y BOARD	
		*******	
	*1-568-881-61	PIN, CONNECTOR 6P	
	*1-568-882-71	PIN, CONNECTOR 7P	
		<CAPACITOR>	
C1701	1-126-233-11	ELECT 22MF	20% 50V
C1702	1-101-004-00	CERAMIC 0.01MF	50V
C1703	1-126-233-11	ELECT 22MF	20% 50V
C1704	1-101-004-00	CERAMIC 0.01MF	50V
C1705	1-126-233-11	ELECT 22MF	20% 50V
C1706	1-126-233-11	ELECT 22MF	20% 50V
C1707	1-126-233-11	ELECT 22MF	20% 50V
C1710	1-102-959-00	CERAMIC 22PF	5% 50V
C1711	1-101-888-00	CERAMIC 68PF	5% 50V
		<DIODE>	
D1701	8-719-911-19	DIODE 1SS119	
		<NR PACK>	
DNR170	1-466-181-11	NR PACK (NRP-2E)	
		<IC>	
IC1701	8-759-982-10	IC M5F7809	
IC1702	8-759-604-29	IC M5F7805	
		<COIL>	
L1701	1-410-671-31	INDUCTOR 47UH	
L1702	1-408-405-00	INDUCTOR 4.7UH	
L1703	1-410-671-31	INDUCTOR 47UH	
		<TRANSISTOR>	
Q1701	8-729-900-89	TRANSISTOR DTC144ES	
Q1702	8-729-900-89	TRANSISTOR DTC144ES	
Q1703	8-729-900-80	TRANSISTOR DTC114ES	
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1705	8-729-173-38	TRANSISTOR 2SA733-K	
		<RESISTOR>	
R1701	1-215-860-11	METAL OXIDE 33	5% 1W
R1702	1-249-425-11	CARBON 4.7K	5% 1/4W
R1703	1-249-434-11	CARBON 27K	5% 1/4W
R1704	1-249-425-11	CARBON 4.7K	5% 1/4W
R1705	1-249-426-11	CARBON 5.6K	5% 1/4W
R1706	1-249-427-11	CARBON 6.8K	5% 1/4W
R1707	1-249-429-11	CARBON 10K	5% 1/4W
R1708	1-249-429-11	CARBON 10K	5% 1/4W
R1710	1-249-433-11	CARBON 22K	5% 1/4W
R1711	1-249-438-11	CARBON 56K	5% 1/4W
R1712	1-249-413-11	CARBON 470	5% 1/4W
R1713	1-249-414-11	CARBON 560	5% 1/4W
R1714	1-249-417-11	CARBON 1K	5% 1/4W
R1717	1-249-417-11	CARBON 1K	5% 1/4W
R1718	1-249-417-11	CARBON 1K	5% 1/4W
R1723	1-249-415-11	CARBON 680	5% 1/4W

J1

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1651-001-A	J1 BOARD, COMPLETE			
		**********			
	1-561-534-41	SOCKET 21P			
	*1-564-518-11	PLUG, CONNECTOR 3P			
	*1-564-524-11	PLUG, CONNECTOR 9P			
	*1-564-527-11	PLUG, CONNECTOR 12P			
	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
		<CAPACITOR>			
C203	1-124-925-11	ELECT	2.2MF	20% 50V	
C205	1-124-927-11	ELECT	4.7MF	20% 50V	
C206	1-124-925-11	ELECT	2.2MF	20% 50V	
C207	1-124-927-11	ELECT	4.7MF	20% 50V	
C213	1-126-233-11	ELECT	22MF	20% 50V	
C214	1-106-363-00	MYLAR	0.0068MF	10% 400V	
C217	1-106-363-00	MYLAR	0.0068MF	10% 400V	
C218	1-106-375-12	MYLAR	0.022MF	10% 250V	
C219	1-106-375-12	MYLAR	0.022MF	10% 250V	
C220	1-108-620-11	MYLAR	0.0033MF	10% 100V	
C221	1-108-620-11	MYLAR	0.0033MF	10% 100V	
C222	1-106-385-00	MYLAR	0.056MF	10% 100V	
C223	1-106-385-00	MYLAR	0.056MF	10% 100V	
C224	1-106-367-00	MYLAR	0.01MF	10% 400V	
C225	1-136-173-00	FILM	0.47MF	5% 50V	
C226	1-136-173-00	FILM	0.47MF	5% 50V	
C227	1-106-375-12	MYLAR	0.022MF	10% 250V	
C228	1-106-379-12	MYLAR	0.033MF	10% 250V	
C229	1-106-371-00	MYLAR	0.015MF	10% 400V	
C230	1-106-371-00	MYLAR	0.015MF	10% 400V	
C231	1-124-902-00	ELECT	0.47MF	20% 50V	
C232	1-123-875-11	ELECT	10MF	20% 50V	
C233	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C234	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C235	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C236	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C237	1-124-902-00	ELECT	0.47MF	20% 50V	
C238	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C239	1-126-103-11	ELECT	470MF	20% 16V	
C1401	1-123-875-11	ELECT	10MF	20% 50V	
C1402	1-126-103-11	ELECT	470MF	20% 16V	
C1403	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1404	1-124-902-00	ELECT	0.47MF	20% 50V	
C1405	1-136-017-00	CERAMIC CHIP	0.0047MF	50V	
C1406	1-124-902-00	ELECT	0.47MF	20% 50V	
C1407	1-124-910-11	ELECT	47MF	20% 50V	
C1408	1-124-122-11	ELECT	100MF	20% 50V	
C1409	1-126-233-11	ELECT	22MF	20% 50V	
C1410	1-123-875-11	ELECT	10MF	20% 50V	
C1411	1-123-875-11	ELECT	10MF	20% 50V	
C1412	1-124-910-11	ELECT	47MF	20% 50V	
C1413	1-124-910-11	ELECT	47MF	20% 50V	
C1414	1-123-875-11	ELECT	10MF	20% 50V	
C1415	1-124-902-00	ELECT	0.47MF	20% 50V	
C1416	1-124-902-00	ELECT	0.47MF	20% 50V	
C1417	1-124-120-11	ELECT	220MF	20% 16V	
C1418	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1419	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1425	1-124-902-00	ELECT	0.47MF	20% 50V	
C1426	1-124-902-00	ELECT	0.47MF	20% 50V	
C1427	1-136-017-00	CERAMIC CHIP	0.0047MF	50V	
C1428	1-136-017-00	CERAMIC CHIP	0.0047MF	50V	
C1429	1-136-017-00	CERAMIC CHIP	0.0047MF	50V	
C1430	1-163-003-11	CERAMIC CHIP	330PF	10% 50V	
C1431	1-126-529-11	ELECT	0.47MF	20% 50V	
C1432	1-124-902-00	ELECT	0.47MF	20% 50V	
C1433	1-124-122-11	ELECT	100MF	20% 50V	
C1436	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C1437	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C1438	1-106-367-00	MYLAR	0.01MF	10% 400V	
C1439	1-106-367-00	MYLAR	0.01MF	10% 400V	
C1440	1-123-875-11	ELECT	10MF	20% 50V	
C1441	1-123-875-11	ELECT	10MF	20% 50V	
C1442	1-124-910-11	ELECT	47MF	20% 50V	
C1443	1-124-910-11	ELECT	47MF	20% 50V	
C1444	1-124-910-11	ELECT	47MF	20% 50V	
C1445	1-102-824-00	CERAMIC	470PF	5% 50V	
C1446	1-102-824-00	CERAMIC	470PF	5% 50V	
C1501	1-123-875-11	ELECT	10MF	20% 50V	
C1502	1-123-875-11	ELECT	10MF	20% 50V	
C1503	1-108-614-11	MYLAR	0.001MF	10% 100V	
C1504	1-124-910-11	ELECT	47MF	20% 50V	
C1505	1-106-383-00	MYLAR	0.047MF	10% 100V	
C1507	1-108-620-11	MYLAR	0.0033MF	10% 100V	
C1508	1-123-875-11	ELECT	10MF	20% 50V	
C1509	1-124-791-11	ELECT	1MF	20% 50V	
C1511	1-123-875-11	ELECT	10MF	20% 50V	
C1513	1-163-105-00	CERAMIC CHIP	33PF	5% 50V	
		<CONNECTOR>			
CN1401	1-565-838-11	PIN JACK BLOCK 2P			
		<DIODE>			
D201	8-719-110-14	DIODE RD9.1ES-B3			
D202	8-719-110-14	DIODE RD9.1ES-B3			
D205	8-719-110-04	DIODE RD7.5ES-B3			
D206	8-719-110-04	DIODE RD7.5ES-B3			
D1401	8-719-110-04	DIODE RD7.5ES-B3			
D1403	8-719-110-04	DIODE RD7.5ES-B3			
D1404	8-719-110-04	DIODE RD7.5ES-B3			
D1405	8-719-110-04	DIODE RD7.5ES-B3			
D1406	8-719-110-04	DIODE RD7.5ES-B3			
D1407	8-719-110-18	DIODE RD10ES-B3			
D1408	8-719-110-14	DIODE RD9.1ES-B3			
D1409	8-719-110-14	DIODE RD9.1ES-B3			
D1410	8-719-110-14	DIODE RD9.1ES-B3			
D1415	8-719-110-04	DIODE RD7.5ES-B3			
D1418	8-719-110-04	DIODE RD7.5ES-B3			
D1419	8-719-110-04	DIODE RD7.5ES-B3			
D1420	8-719-110-04	DIODE RD7.5ES-B3			
D1421	8-719-110-04	DIODE RD7.5ES-B3			
D1422	8-719-110-04	DIODE RD7.5ES-B3			
D1423	8-719-110-04	DIODE RD7.5ES-B3			
D1424	8-719-110-04	DIODE RD7.5ES-B3			
D1425	8-719-110-04	DIODE RD7.5ES-B3			
D1426	8-719-110-04	DIODE RD7.5ES-B3			
D1501	8-719-300-33	DIODE RU-3AM			
D1502	8-719-911-19	DIODE 1SS119			
D1503	8-719-911-19	DIODE 1SS119			
D1504	8-719-911-19	DIODE 1SS119			
D1505	8-719-911-19	DIODE 1SS119			
D1506	8-719-110-85	DIODE RD36ES-B4			
D1507	8-719-911-19	DIODE 1SS119			

J1

REF.NO.	PART NO.	DESCRIPTION				REMARK
D1510	8-719-911-19	DIODE 1SS119				
		<IC>				
IC201	8-759-013-17	IC TDA6200				
IC1401	8-752-032-27	IC CXA1114P				
IC1402	8-759-946-32	IC TEA2014A				
IC1403	8-759-240-53	IC TC4053BP				
IC1501	8-759-942-16	IC TEA2031A				
		<TRANSISTOR>				
Q201	8-729-271-22	TRANSISTOR 2SC2712-G				
Q202	8-729-271-22	TRANSISTOR 2SC2712-G				
Q1401	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1402	8-729-271-22	TRANSISTOR 2SC2712-G				
Q1403	8-729-271-22	TRANSISTOR 2SC2712-G				
Q1404	8-729-216-22	TRANSISTOR 2SA1162-G				
		<RESISTOR>				
R201	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R202	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R203	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R204	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R205	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R206	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R208	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R209	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R210	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R213	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R214	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R215	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R216	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R219	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R220	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R221	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R222	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R223	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R228	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R229	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R230	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R234	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1401	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1402	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1403	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1404	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1408	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1409	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1413	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1415	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1416	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1417	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1422	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1423	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1424	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1425	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1427	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1428	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1429	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1430	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1431	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1432	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1433	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1440	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1441	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1442	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1443	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1444	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1445	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1446	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1448	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1452	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1453	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1454	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1455	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1457	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1459	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1460	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1461	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1462	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1463	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1464	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1465	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1466	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1467	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1468	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1471	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1472	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1473	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1474	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1476	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1477	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1478	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1480	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1482	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1483	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1484	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1488	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1501	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1502	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1503	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1504	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1509	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1511	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1512	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1513	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1516	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1517	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1519	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1520	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R1521	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R1550⚠	1-213-036-11	FUSIBLE	1	5%	1W	F
R1556	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON	470K
RV1502	1-228-994-00	RES, ADJ, CARBON	10K
RV1503	1-238-017-11	RES, ADJ, CARBON	22K
RV1504	1-238-012-11	RES, ADJ, CARBON	1K
RV1505	1-238-023-11	RES, ADJ, CARBON	470K
RV1506	1-238-017-11	RES, ADJ, CARBON	22K
RV1507	1-238-009-11	RES, ADJ, CARBON	220
RV1508	1-238-016-11	RES, ADJ, CARBON	10K
RV1509	1-238-023-11	RES, ADJ, CARBON	470K

****

*1-631-222-11 J2 BOARD
****

1-537-088-21	TERMINAL BOARD, INPUT/OUTPUT	
*1-564-517-11	PLUG, CONNECTOR	2P
*1-564-519-11	PLUG, CONNECTOR	4P

<CAPACITOR>

C1751	1-101-005-00	CERAMIC	0.022MF		50V
C1752	1-101-005-00	CERAMIC	0.022MF		50V
C1755	1-102-114-00	CERAMIC	470PF	10%	50V
C1756	1-102-114-00	CERAMIC	470PF	10%	50V

<COIL>

L1751	1-412-240-11	INDUCTOR, WIDE BAND
L1752	1-412-240-11	INDUCTOR, WIDE BAND

****

MISCELLANEOUS
****

⚠.	1-426-398-11	COIL, DEMAGNETIZATION
⚠.	1-451-313-22	DEFLECTION YOKE (Y29FXA)
	1-452-032-00	MAGNET, DISK; 10MM φ
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ
⚠.	1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)
⚠.	1-575-487-11	CORD,POWER (WITH NOISE FILTER)
V901 ⚠.	8-733-821-05	PICTURE TUBE (A68JYK10X)

****

ACCESSORIES AND PACKING MATERIALS
****

PART NO.	DESCRIPTION	REMARK
*A-1678-001-A	BOX ASSY, WOOFER	
*A-1678-015-A	BOX ASSY (RIGHT), SPEAKER	
*A-1678-018-A	BOX ASSY (LEFT), SPEAKER	
1-465-363-11	COMMANDER, REMOTE (RM-689)	
3-759-001-12	MANUAL, INSTRUCTION	
*4-200-036-01	INDIVIDUAL CARTON	
*4-200-041-01	CUSHION (UPPER) (ASSY)	
*4-200-042-01	CUSHION (LOWER) (ASSY)	
*4-384-027-01	BAG, PROTECTION	

9-964-463-01

Sony Corporation
TV Group

English
90BH0443-1
Printed in Japan
© 1990. 2